S
331.769
O7c
1975
v.3
Construction worker profile, community report, Rock Springs [and] Green River, Wyoming

STATE DOCUMENTS COLLECTION
[illegible] 1978
MONTANA STATE LIBRARY
930 E Lyndale Ave
Helena, Montana 59601

Construction Worker Profile

COMMUNITY REPORT
Rock Springs and Green River, Wyoming

PLEASE RETURN

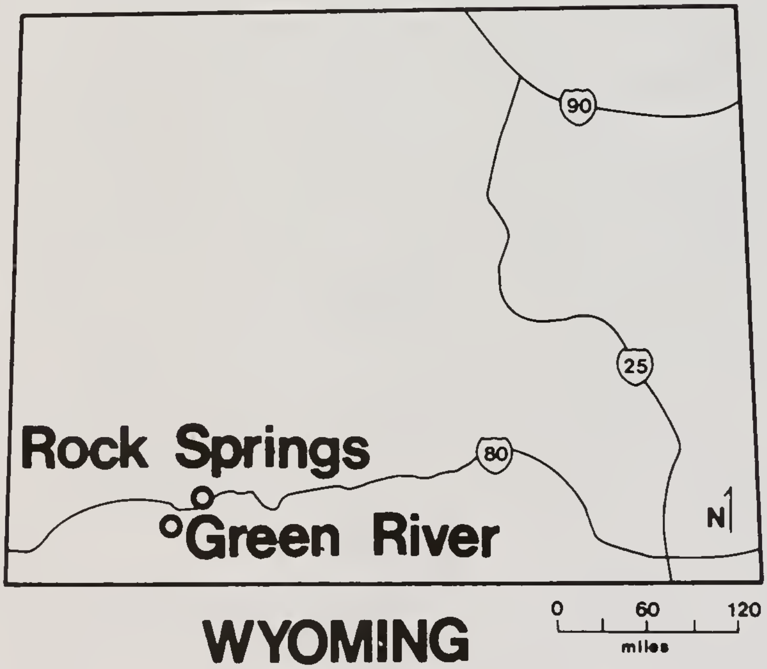
A STUDY FOR THE
OLD WEST REGIONAL COMMISSION

MST. APR 8 '81

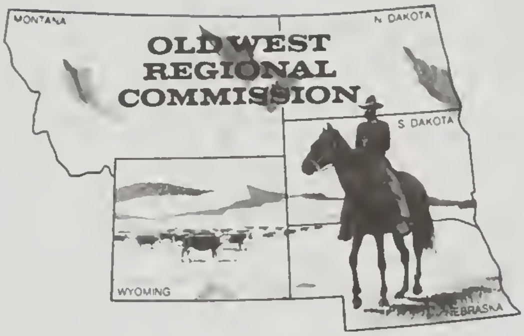
MONTANA STATE LIBRARY
S 331.769 O7c 1975 v.3 c.1
Construction worker profile, community r
3 0864 00038873 9

Construction Worker Profile

COMMUNITY REPORT



A STUDY PREPARED FOR THE
OLD WEST REGIONAL COMMISSION
BY
MOUNTAIN WEST RESEARCH, INC
DECEMBER 1975



The Old West Region Commission is a Federal-State partnership designed to solve regional economic problems and stimulate orderly economic growth in the states of Montana, Nebraska, North Dakota, South Dakota and Wyoming. Established in 1972 under the Public Works and Economic Development Act of 1965, it is one of seven identical Commissions throughout the country engaged in formulating and carrying out coordinated action plans for regional economic development.

COMMISSION MEMBERS

State Cochairman
  Gov. Edgar J. Herschler of Wyoming
    Alternate: David D. Freudenthal

Federal Cochairman
  Warren Clay Wood

State Members
  Gov. Thomas L. Judge of Montana
    Alternate: Keith L. Colbo
  Gov. J. James Exon of Nebraska
    Alternate: W. Don Nelson
  Gov. Arthur A. Link of North Dakota
    Alternate: Woody Gagnon
  Gov. Richard F. Kneip of South Dakota
    Alternate: Theodore R. Muenster

COMMISSION OFFICES

1730 K Street, N.W.
Suite 426
Washington, D.C. 20006
202/967-3491

201 Main Street
Suite D
Rapid City, South Dakota 57701
605/348-6310

Room 306A
Fratt Building
Billings, Montana 59101
406/245-6711 Ext. 6665

MOUNTAIN WEST
RESEARCH INCORPORATED

January 30, 1976

Ms. Jeannette Studer
Old West Regional Commission
The Fratt Building
Suite 306A
Billings, Montana 59101

Dear Ms. Studer:

Enclosed is the Community Report for Rock Springs and Green River, Wyoming. These are two of the currently affected communities included in the study to help us learn something of the effects which large-scale construction projects have on small communities. The Household Survey findings for both towns are included in this single document because both towns were affected by the construction of the Jim Bridger electrical generating plant and by the construction of numerous trona processing plants, and it was assumed that anyone interested in the data for one town would be interested in those for the other. The Project Survey findings for the Jim Bridger and Texas Gulf, Inc. plants are included in this report, as well as the findings of the Community Survey, which was conducted in Rock Springs.

Mountain West is particularly appreciative of the cooperative spirit with which community leaders and the citizens of both Rock Springs and Green River worked with our field researchers. We hope that the enclosed information will be useful to a broad range of researchers and concerned citizens. If we can be of further help in explaining our procedures or results, please contact us.

Sincerely yours,

MOUNTAIN WEST RESEARCH, INC.

Dwayne H Jelinek

Dwayne H. Jelinek
President

DHJ:st

Encl.

SOCIO-ECONOMIC PLANNING CONSULTANTS 200 COLUMBINE STREET, SUITE 301 DENVER, COLORADO 80206 (303) 320-1970
OFFICES ALSO LOCATED IN BOISE, IDAHO CHEYENNE, WYOMING HELENA, MONTANA PHOENIX, ARIZONA

STUDY COORDINATOR FOR THE
OLD WEST REGIONAL COMMISSION:

Jeannette Studer

STUDY DIRECTORS:

Jim Chalmers
Judy Glazner

HOUSEHOLD SURVEY:

Judy Glazner, Director
Bill Douglass
Oro Lynn Harshman
Donna Aadsen
Delores Zieman

PROJECTS SURVEY:

Cal Cumin, Director

COMMUNITY SURVEY:

Bernie Jones, Director
Charles Cortese
Joe Mann

EXPERIMENTAL DESIGN, ANALYSIS:

Bob St. Louis, Director
Jan Barringer
Reyn Du Bois
Harvey Krauss

THE CONSTRUCTION WORKER PROFILE STUDY

The CONSTRUCTION WORKER PROFILE was conducted for the Old West Regional Commission to study the socio-economic consequences of the construction of large energy-related facilities. The emphasis of the study was on the collection of primary data, and three distinct efforts were required.

- A **Household Survey** was conducted which consisted of door-to-door interviews with 1432 households in nine western communities which have been affected, are being affected, or will be affected by large energy-related construction projects. The purpose of the household survey was to determine household and labor force characteristics, commuting patterns, residential preferences, social integration, household expenditures, satisfaction with community services, and attitudes of residents about both the projects and their community. Respondents to the household survey included residents who lived in the community prior to the construction project(s) and, in the case of currently affected communities, newcomer construction workers and other newcomers. For the post-impact communities, a sample of all residents was interviewed.
- A **Project Survey** was undertaken which consisted of distributing and collecting short self-administered questionnaires to construction workers at 14 major construction sites in eight western states. A total of 3168 responses was obtained which indicated workers' characteristics with respect to household composition, place of residence, previous residence, and occupation.
- A **Community Survey**, during which three social scientists lived for a time in three of the Household Survey communities, and conducted structured, in-depth interviews with households and less structured interviews with institutional representatives, was the third activity of the study. The purpose of this procedure was to determine some of the construction period impacts on the personal lives of community residents and on the communities' institutions, and also to observe both individual and institutional response to those impacts.

The results of the study are summarized in 10 documents.

I. CONSTRUCTION WORKER PROFILE: FINAL REPORT
Purpose: To provide a detailed account of the purpose, method, and results of the study. Emphasis is placed on generalizations supported by the data with special attention to the applicability of the results to the planning and impact assessment processes.

II. CONSTRUCTION WORKER PROFILE: SUMMARY REPORT
Purpose: To make the objectives and principal findings of the study easily accessible to the nontechnical reader.

III. CONSTRUCTION WORKER PROFILE: COMMUNITY REPORTS
A. Green River and Rock Springs, Wyoming
B. Forsyth and Colstrip, Montana
C. Center, North Dakota
D. Langdon, North Dakota
E. Conrad, Montana
F. Killdeer, North Dakota
G. St. George, Utah

Purpose: To prepare seven distinct community reports containing descriptions of the Household Survey findings for individual communities and summaries of information from the Project Survey on projects relevant to each. Due to the proximity of Rock Springs to Green River and of Forsyth to Colstrip, the community reports for each of these pairs of communities were combined in single volumes under the assumption that anyone interested in one would be interested in the other.

IV. CONSTRUCTION WORKER PROFILE: USER'S GUIDE TO THE DATA
Purpose: To document the methodology, procedures, and results of the study so that the basic data can be used by other researchers. The entire data set is described in detail as are the procedures for obtaining the data on tape, punched cards, or hard copy.

Distribution of Publications:
The documents described above are available on request from:
Old West Regional Commission, 1730 "K" Street, N.W., Suite 426, Washington, D.C. 20006

Distribution of Data:
The procedures for the distribution of data are described in the USER'S GUIDE TO THE DATA. Questions about these procedures may be directed to:

Ms. Jeannette Studer, Old West Regional Commission, Fratt Building, Suite 306A,
Billings, Montana 59101, (406) 245-6711, Ext. 6665, OR

Ms. Jan Barringer, Mountain West Research, Inc., 123 E. University Drive, Suite 219,
Tempe, Arizona 85281, (602) 968-7991.

TABLE OF CONTENTS

Page

I. INTRODUCTION 1

II. PROJECT SURVEY 3

- A. Methodology And Procedures 3
- B. Survey Findings: Jim Bridger 3
- C. Survey Findings: Texas Gulf, Inc. 6

III. HOUSEHOLD SURVEY 10

- A. Methodology And Procedures: Rock Springs 10
- B. Characteristics Of The Population Of Rock Springs, Wyoming 11
  - 1. Family Size And Marital Status 11
  - 2. Age 14
  - 3. Education 17
  - 4. Occupation And Industry 20
  - 5. Income 25
- C. Transiency Of Newcomers 30
- D. Community Integration 32
- E. Satisfaction With Services 34
- F. Housing Preferences 37
- G. Attitudes Of Long Time Residents About Effects Of Projects 40
- H. Attitudes Of Newcomers About Living In Rock Springs 41
- I. Methodology And Procedures: Green River 42
- J. Characteristics Of The Population Of Green River, Wyoming 43
  - 1. Family Size and Marital Status 43
  - 2. Age 47
  - 3. Education 50
  - 4. Occupation and Industry 52
  - 5. Income 55
- K. Transiency Of Newcomers 60
- L. Community Integration 62
- M. Satisfaction With Services 64
- N. Housing Preferences 67
- O. Attitudes Of Long Time Residents About Effects Of Projects 69
- P. Attitudes Of Newcomers About Living In Green River 70

IV. COMMUNITY SURVEY 71

- A. Methodology And Procedures 71
- B. Community History And Sociological Profile 73
  - 1. Historical Sketch 73
  - 2. Sociological Profile 74
    - a. Cultural Definitions 74
    - b. Institutional Patterns 74
- C. Project History 75
  - 1. Background of the Project 75
  - 2. Project Entry 77

Page

D. Impacts And Responses 78
  1. Institutional Impacts 78
    a. Government 78
    b. The Local Economy 79
    c. Education 80
    d. Helping Services 81
  2. Social Impacts 83
E. Summary And Conclusions 86

APPENDIX

A. Capital Facilities A-1
  1. Rock Springs, Wyoming A-1
  2. Green River, Wyoming A-7
B. Sample Project Survey Questionnaires B-1
C. Sample Household Survey Interview Schedule C-1
D. Sample Individual Interview Schedule: Community Survey D-1
E. Sample Institutional Representative Interview Schedule: Community Survey E-1

LIST OF TABLES

Table		Page
1	PRESENT ADDRESS OF LOCAL AND NONLOCAL WORKERS: JIM BRIDGER	4
2	OCCUPATIONS OF LOCAL, NONLOCAL WORKERS: JIM BRIDGER	5
3	MARITAL STATUS: JIM BRIDGER	6
4	AVERAGE POPULATION INFLUX PER 100 NONLOCAL CONSTRUCTION WORKERS: JIM BRIDGER	6
5	PRESENT ADDRESS OF LOCAL AND NONLOCAL WORKERS: TEXAS GULF, INC.	7
6	OCCUPATIONS OF LOCAL, NONLOCAL WORKERS: TEXAS GULF, INC.	8
7	MARITAL STATUS: TEXAS GULF, INC.	9
8	AVERAGE POPULATION INFLUX PER 100 NONLOCAL CONSTRUCTION WORKERS: TEXAS GULF, INC.	9
9	FAMILY SIZE COMPARISONS: ROCK SPRINGS, WYOMING, AND THE UNITED STATES	11
10	AVERAGE NUMBER OF CHILDREN IN VARIOUS AGE CATEGORIES (FOR EACH 100 FAMILIES) ROCK SPRINGS, WYOMING	12
11	HOUSEHOLD DISTRIBUTION BY SIZE OF HOUSEHOLD: ROCK SPRINGS AND THE UNITED STATES	13
12	MARITAL STATUS OF HOUSEHOLD HEADS: ROCK SPRINGS, WYOMING	14
13	MEDIAN AGE COMPARISONS: ROCK SPRINGS, WYOMING, AND U.S. POPULATIONS	15
14	AGE DISTRIBUTION OF HOUSEHOLD HEADS: ROCK SPRINGS AND THE UNITED STATES	16
15	AGE DISTRIBUTION: ROCK SPRINGS AND THE UNITED STATES	17
16	EDUCATIONAL ATTAINMENTS: ROCK SPRINGS, WYOMING, AND THE UNITED STATES	18
17	EDUCATIONAL ATTAINMENTS OF HOUSEHOLD HEADS: ROCK SPRINGS AND THE UNITED STATES	19
18	OCCUPATIONS OF HOUSEHOLD HEADS: ROCK SPRINGS	21
19	INDUSTRY OF EMPLOYED HOUSEHOLD HEADS: ROCK SPRINGS, WYOMING	22
20	OCCUPATIONS OF SPOUSES: ROCK SPRINGS, WYOMING	24
21	INDUSTRY OF EMPLOYED SPOUSES: ROCK SPRINGS, WYOMING	25
22	MEDIAN ANNUAL HOUSEHOLD INCOME: ROCK SPRINGS AND THE UNITED STATES	26

Table Page

23 ANNUAL HOUSEHOLD INCOME: ROCK SPRINGS AND THE UNITED STATES 27

24 AVERAGE HOUSEHOLD EXPENDITURES BY CATEGORY: ROCK SPRINGS RESIDENTS 29

25 PLANS FOR STAYING IN THE AREA: ROCK SPRINGS RESIDENTS 31

26 SOURCES OF SOCIAL CONTACT: ROCK SPRINGS RESIDENTS 33

27 SATISFACTION/DISSATISFACTION WITH COMMUNITY FACILITIES: ROCK SPRINGS RESIDENTS 35

28 SATISFACTION/DISSATISFACTION WITH SERVICES ACCORDING TO HOUSEHOLD INCOME: ROCK SPRINGS RESIDENTS 37

29 HOME OWNERSHIP: ROCK SPRINGS RESIDENTS 38

30 TYPE OF DWELLING LIVED IN: ROCK SPRINGS RESIDENTS 39

31 FAMILY SIZE COMPARISONS: GREEN RIVER, WYOMING, AND THE UNITED STATES 44

32 AVERAGE NUMBER OF CHILDREN IN VARIOUS AGE CATEGORIES (FOR EACH 100 FAMILIES): GREEN RIVER, WYOMING 45

33 HOUSEHOLD DISTRIBUTION BY SIZE OF HOUSEHOLD: GREEN RIVER AND THE UNITED STATES 46

34 MARITAL STATUS OF HOUSEHOLD HEADS: GREEN RIVER, WYOMING 47

35 MEDIAN AGE COMPARISONS: GREEN RIVER, WYOMING, AND THE UNITED STATES 48

36 AGE DISTRIBUTION OF HOUSEHOLD HEADS: GREEN RIVER AND THE UNITED STATES 49

37 AGE DISTRIBUTION: GREEN RIVER AND THE UNITED STATES 50

38 EDUCATIONAL ATTAINMENTS: GREEN RIVER AND THE UNITED STATES 51

39 EDUCATIONAL ATTAINMENTS OF HOUSEHOLD HEADS: GREEN RIVER AND THE UNITED STATES 52

40 OCCUPATIONS OF HOUSEHOLD HEADS: GREEN RIVER, WYOMING 54

41 INDUSTRY OF EMPLOYED HOUSEHOLD HEADS: GREEN RIVER WYOMING 55

42 OCCUPATIONS OF SPOUSES, GREEN RIVER, WYOMING 56

43 INDUSTRY OF EMPLOYED SPOUSES:GREEN RIVER, WYOMING 57

44 MEDIAN ANNUAL HOUSEHOLD INCOME: GREEN RIVER AND THE UNITED STATES 58

45 ANNUAL HOUSEHOLD INCOME: GREEN RIVER AND THE UNITED STATES 59

Table Page

46 AVERAGE HOUSEHOLD EXPENDITURES BY CATEGORY: GREEN RIVER RESIDENTS 61

47 PLANS FOR STAYING IN THE AREA: GREEN RIVER RESIDENTS 62

48 SOURCES OF SOCIAL CONTACT: GREEN RIVER RESIDENTS 63

49 SATISFACTION/DISSATISFACTION WITH COMMUNITY FACILITIES: GREEN RIVER RESIDENTS 65

50 SATISFACTION/DISSATISFACTION WITH SERVICES ACCORDING TO HOUSEHOLD INCOME: GREEN RIVER RESIDENTS 67

51 TYPE OF DWELLING LIVED IN: GREEN RIVER, WYOMING 68

I. INTRODUCTION

Rock Springs, Wyoming is probably the best known of the modern boom towns. It is the largest town in mineral rich Sweetwater County. From a 1970 population of 11,674 persons,[1] the town grew to an estimated 26,000 persons by 1975.[2] Most of the growth in Rock Springs began when the Jim Bridger coal-fired electrical generating plant began to be constructed in 1971. Thus, growth in the town did not occur in orderly yearly increments. Most of it occurred in the 3 years between 1971 and 1974. Such extraordinarily rapid growth (123 percent in 5 years) put severe strains on virtually every element of the community fabric and its institutions. The housing situation was a nightmare; when housing was available, it was at exorbitant prices. At one time, there were construction workers living in tents through the autumn. Community facilities quickly became inadequate and schools were overcrowded. The mental health clinic's case load increased much faster than did the population. Interestingly, most of the new cases were long time residents finding difficulty coping with the enormous changes wrought in their lives by the tremendous, and to some degree, unexpected growth. While the problems Rock Springs faced were real and quite severe, it is difficult to determine exactly how much was exaggerated and romanticized by news media, how much was rumor.

Green River, Wyoming is twelve miles west of Rock Springs and has also felt some of the impacts brought about by the construction of the Jim Bridger plant. Of more significance to Green River has been the increase in trona mining and the construction and expansion of trona processing plants in Green River and Granger. The 1970 population of Green River was 4340 persons;[3] in 1975, the population was estimated to be over 9000 people. The major trona mining and processing companies built much of the new housing and mobile home parks in Green River and sold the housing or rented the trailer pads to their employees. It was heard repeatedly by interviewers in Rock Springs that is was difficult to move into Green

---

[1] U.S. Bureau of the Census, 1970 Census of Population: General Social and Economic Characteristics, Wyoming (Washington, D.C.: U.S. Government Printing Office, 1971), p. 52-127.

[2] 1975 estimate made by local planning office.

[3] U.S. Bureau of the Census, op. cit, p. 52-142.

River unless one worked for one of the mining companies. There is no doubt, however, that many of the construction projects in Sweetwater County have had significant impacts on Green River.

It became apparent while doing the Household Survey field work that Green River acts like a big city suburb to Rock Springs. Rock Springs is the trade and service center for the county, and has experienced more disruption and growth than Green River. It perhaps conforms more to the traditional image of a boom town than does Green River. Green River appears somewhat quieter and less disrupted and seems to appeal to persons who would, if they lived in a large metropolitan area, gravitate toward the suburban areas. Much of Green River has the physical appearance of a big city suburb, and there are significant differences in population characteristics of the two communities. The data for this study give some indication as to how the growth associated with the construction of the power plant and the trona processing plants actually affected the towns, whether residents think it was harmful or beneficial. Apparently the towns, especially Green River, were experiencing some out-migration, and some felt the towns were dying before the "energy crisis" and rising fuel prices made it feasible to develop Sweetwater County's energy resources.

The Household Survey was conducted in both Rock Springs and Green River. Because of the proximity of the two towns, and because both towns were affected by the energy and trona booms, it was felt that the Household Survey results for both towns should be presented in one document.

The Project Survey, conducted at major construction sites, took place at two plant sites near Rock Springs and Green River: at the Jim Bridger electrical generating plant 30 miles east of Rock Springs, and at the Texas Gulf, Inc. plant just outside Granger, about 40 miles northwest of Green River. The data collected from construction workers at these two sites are presented in the first section of this report; the second section presents the findings of the Household Survey for Rock Springs and for Green River.

Rock Springs was one of the three communities selected for study in the Community Survey. A social scientist spent about two weeks in Rock Springs conducting in-depth interviews with households and with institutional representatives. The purpose of this activity was to determine the construction period impacts upon the personal lives of residents and upon institutions. The final section of this report will consist of a discussion of the findings and observations of the researcher who conducted the Community Survey in Rock Springs.

II. PROJECT SURVEY

A. METHODOLOGY AND PROCEDURES

The Project Survey was conducted at the Jim Bridger plant near Rock Springs and at the Texas Gulf, Inc. plant at Granger, northwest of Green River, in southwestern Wyoming. The Project Survey pretest was conducted at these sites, and the questionnaire was modified as a result of the test. The pilot questionnaire and the final questionnaire appear in the Appendix.

At both plants, the questionnaires were distributed through supervisory personnel to employees of the major contractors. These supervisors also collected the completed questionnaires and returned them to the researcher. At the Jim Bridger electrical generating plant, 503 questionnaires (60 percent of those distributed) were returned, and at the Texas Gulf,Inc. plant, 227 completed questionnaires (60.5 percent of those distributed) were returned.

B. SURVEY FINDINGS: JIM BRIDGER

Of the respondents to the Project Survey at the Jim Bridger plant, slightly more than two-thirds (70.4 percent) were nonlocal workers, and the rest were local workers. The determination of whether a worker was "local" or "nonlocal" was based entirely on his/her answer to question 3.a. on the Project Survey questionnaire. That question reads, "Are you living in the same town you lived in before you started working on this job?" If the respondent answered, "No", to that question, it was assumed that he/she moved to the area to work at the plant. In that case, he/she was part of a nonlocal supply of workers attracted to the area by the plant construction. Those workers who answered, "Yes", to the question, those who had not moved, were considered local workers.

Local workers at the Jim Bridger plant commuted from as far as 145 miles away, but the great majority (89 percent) lived within 50 miles of the plant. Nearly 26 percent of the nonlocal workers said that their previous residences had been in other Wyoming towns; 15 percent mentioned places in adjacent states as previous residences; and over 59 percent came from nonadjacent states.

Table 1 shows the present addresses of local and nonlocal workers. Numbers in parentheses are the approximate distances in miles from the Jim Bridger plant.

TABLE 1

PRESENT ADDRESS OF LOCAL AND NONLOCAL WORKERS JIM BRIDGER

Town	Percentage of Workers	
	Local	Nonlocal
Rock Springs (30)	61.7	60.7
Rawlins (82)	1.4	0.9
Farson (66)	---	0.6
Wamsutter (42)	0.7	2.5
Point of Rocks (0)	1.4	5.9
Green River (42)	17.7	7.1
Jim Bridger Trailer Court (0)	---	3.4
Lander (145)	4.2	0.3
Reliance (36)	1.4	1.2
Superior (18)	3.5	5.6
Kemmerer (115)	---	0.3
Reliance Trailer Court (36)	4.3	10.8
Mountain View (100)	---	0.3
Boulder (113)	0.7	---
Evanston (125)	1.4	---
Lyman (90)	0.7	---
LaBarge (130)	0.7	---
Eden (62)	---	0.3
TOTAL[a]	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

Nonlocal workers tended to dominate the supervisory, professional, and craftsmen occupation groups, but there were more local workers than nonlocal workers in the mechanic, laborer, and operating engineer occupation groups. Table 2 presents local/nonlocal status of workers by occupation.

TABLE 2

OCCUPATIONS OF LOCAL, NONLOCAL WORKERS
JIM BRIDGER

Occupation	Percentage of Occupation Group		
	Local Workers	Nonlocal Workers	Total
Superintendent	---	100.0	100.0
Foreman	42.1	57.9	100.0
Engineer	25.0	75.0	100.0
Surveyor	100.0	---	100.0
Ironworker	20.0	80.0	100.0
Millwright	28.6	71.4	100.0
Pipefitter	13.8	86.2	100.0
Electrician	25.6	74.4	100.0
Painter	---	100.0	100.0
Carpenter	28.1	71.9	100.0
Plumber	20.0	80.0	100.0
Mechanic	75.0	25.0	100.0
Welder	28.6	71.4	100.0
Laborer	50.0	50.0	100.0
Helper	80.0	20.0	100.0
Operating Engineer	53.3	46.7	100.0
Oiler	42.9	57.1	100.0
Truck Driver	30.0	70.0	100.0
Warehouseman	---	100.0	100.0
Office Worker	37.2	62.8	100.0
Other	---	100.0	100.0

There were no significant differences between local and nonlocal workers with respect to marital status characteristics. Table 3 shows marital status for local and nonlocal workers at the Jim Bridger plant.

Over 21 percent of the nonlocal workers said that they had no families.[4] Of those nonlocal workers having families, over 77 percent said that their families were living with them.

---

[4] For the purposes of this report, a family is composed of the respondent and other household members related to the respondent by blood, marriage, or adoption. Spouses and children were the only relatives of the respondent included in these data. All families included at least one other person besides the respondent.

TABLE 3

MARITAL STATUS
JIM BRIDGER

Marital Status	Percentage of Workers	
	Local	Nonlocal
Married	73.2	78.7
Single	16.1	15.5
Widowed, Divorced, or Separated	10.7	5.8
TOTAL	100.0	100.0

For every 100 nonlocal workers, then, (using marital status and family characteristics data obtained for workers at the Jim Bridger plant) the breakdown with respect to workers and their families, shown in Table 4, can be expected.

TABLE 4

AVERAGE POPULATION INFLUX PER 100
NONLOCAL CONSTRUCTION WORKERS
JIM BRIDGER

Population Category	Number of Persons
Workers single, widowed, or divorced	21.3
Married workers with families absent	14.0
Married workers with families present	64.7
Family members present	187.7
TOTAL Population Influx per 100 Nonlocal Workers	287.7

C. SURVEY FINDINGS: TEXAS GULF, INC.

Of the construction workers responding to the Project Survey at the Texas Gulf, Inc. plant, 29 percent were local workers and 72 percent were nonlocal.

Local workers at the Texas Gulf, Inc. plant commuted from as far as 146 miles away, and only 41 percent of these workers lived within 50 miles of the plant. Only 10.5 percent of the nonlocal workers said that their previous residences had been in Wyoming; 32.9 percent indicated places in adjacent states as previous residences; and 56.6 percent came to Wyoming from states not adjacent to it.

Table 5 shows the present addresses of local and nonlocal workers. Numbers in parentheses are the approximate distances in miles from the site of the Texas Gulf plant.

TABLE 5

PRESENT ADDRESS OF LOCAL AND NONLOCAL WORKERS TEXAS GULF, INC.

Town	Percentage of Workers	
	Local	Nonlocal
Rock Springs (55)	37.5	29.9
Green River (43)	12.5	7.6
Reliance (62)	---	0.6
Superior (81)	1.8	0.6
Kemmerer (41)	7.1	5.1
Lyman (35)	7.1	4.5
Granger (6)	5.4	2.5
Mountain View (38)	---	2.5
Fort Bridger (37)	7.1	7.0
Yorktown Village (55)	10.7	30.6
Scoop Shovel Trailer Park (6)	---	7.0
Diamondville (39)	---	1.3
Afton (126)	---	0.6
Eden (97)	1.8	---
Farson (102)	3.6	---
Pinedale (146)	1.8	---
Cokeville (90)	1.8	---
Little America (15)	1.8	---
TOTAL[a]	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

The nonlocal workers at the Texas Gulf plant tended to live farther from the plant site than did the workers at Jim Bridger. Only 10 percent lived within 30 miles of the plant. Another 27.9 percent lived betwhen 35 and 45 miles away. The greatest proportion (60.6 percent) lived in Rock Springs (the location of Yorktown Village), 55 miles away.

Nonlocal workers dominated most occupation categories, as shown in Table 6.

TABLE 6

OCCUPATIONS OF LOCAL, NONLOCAL WORKERS
TEXAS GULF, INC.

Occupation	Percentage of Occupation Group		
	Local Workers	Nonlocal Workers	Total
Superintendent	---	100.0	100.0
Foreman	13.3	86.7	100.0
Engineer	---	100.0	100.0
Surveyor	20.0	80.0	100.0
Ironworker	13.2	86.8	100.0
Cement Finisher	---	100.0	100.0
Millwright	---	100.0	100.0
Pipefitter	50.0	50.0	100.0
Electrician	---	100.0	100.0
Painter	25.0	75.0	100.0
Carpenter	36.7	63.3	100.0
Plumber	100.0	---	100.0
Mechanic	---	100.0	100.0
Sheet Metal Worker	---	100.0	100.0
Welder	50.0	50.0	100.0
Laborer	39.0	61.0	100.0
Helper	20.0	80.0	100.0
Winterizer	---	100.0	100.0
Operating Engineer	50.0	50.0	100.0
Oiler	100.0	---	100.0
Warehouseman	40.0	60.0	100.0
Safety	---	100.0	100.0
Office Worker	37.5	62.5	100.0
Other	---	100.0	100.0

Among nonlocal workers, more were single and fewer divorced or widowed than among local workers. Table 7 shows marital status for local and nonlocal workers at the Texas Gulf plant.

TABLE 7

MARITAL STATUS
TEXAS GULF, INC.

Marital Status	Percentage of Workers	
	Local	Nonlocal
Married	67.8	67.1
Single	22.0	25.1
Divorced or Widowed	10.2	7.8
TOTAL	100.0	100.0

Nearly 31 percent of the nonlocal workers said they had no families.[5] Of those nonlocal workers having families, about 55 percent said that their families were living with them.

For every 100 nonlocal workers, then, (using marital status and family characteristics data obtained for workers at the Texas Gulf plant) the breakdown, with respect to workers and their families, shown in Table 8, can be expected.

TABLE 8

AVERAGE POPULATION INFLUX PER 100
NONLOCAL CONSTRUCTION WORKERS
TEXAS GULF, INC.

Population Category	Number of Persons
Workers single, widowed, or divorced	32.9
Married workers with families absent	25.7
Married workers with families present	41.3
Family members present	112.0
TOTAL Population Influx per 100 Nonlocal Workers	208.9

---

[5] For the purposes of this report, a family is composed of the respondent and other household members related to the respondent by blood, marriage, or adoption. Spouses and children were the only relatives of the respondent included in these data. All families included at least one other person besides the respondent.

III. HOUSEHOLD SURVEY

A. METHODOLOGY AND PROCEDURES: ROCK SPRINGS

The Household Survey was conducted with 432 households in Rock Springs. There were about 7500 households in the town, so a 5.8 percent sample of households participated in the survey. Rock Springs was a currently affected community, so two-phase sampling was used there. The first phase consisted of dividing the town into 175 contiguous clusters of 42 households each, and conducting an interview with one household from each cluster. This was done in order to determine in what proportions long time residents, newcomer construction workers, and other newcomers actually existed in Rock Springs. It was found that 51.5 percent of the residents were long time residents, 25.8 percent were newcomer construction workers, and 22.7 percent were other newcomers.

Using these data to revise the estimates of the proportions in which the three groups actually existed in the community, sample quotas for the three groups were established, and the second phase begun. The town was divided into clusters of 21 households each, and an interview attempted at one household in each cluster. As quotas were filled, potential respondents were screened according to length of residence and occupation in order to interview the appropriate number of respondents for each group. In this way, 432 interviews were completed: 96 with long time resident households, 177 with newcomer construction worker households, and 145 with other newcomer households.[6] Those who had moved to Rock Springs within the past 4 years were considered newcomers. The distinction between "construction worker" and "other" newcomer households was made on the basis of the household head's occupation. A copy of the Household Survey interview form appears in the Appendix.

The sampling plan and results, field procedures, data handling and analysis, and the household survey questionnaire are explained in greater detail in CONSTRUCTION WORKER PROFILE: USER'S GUIDE TO THE DATA. Also included in that document are procedures for obtaining the entire data set.

---

[6] The number of interviews for each group will not add to 432 because some newcomers listed occupations which were not readily classifiable as construction or other occupations. Data from those interviews were therefore not included for analysis of the three subpopulations.

B. CHARACTERISTICS OF THE POPULATION OF ROCK SPRINGS, WYOMING

1. Family Size and Marital Status

Average family sizes for Rock Springs residents were comparable to that for the state and the United States, with long time resident families being somewhat larger than newcomer families. Table 9 compares family sizes for Rock Springs residents, Wyoming, and the United States. Characteristics for the community are derived by weighting the data for each of the subpopulations by their representation in the population as determined in Phase I sampling. Family size for the city is derived, therefore, as .258 x newcomer construction workers' characteristics + .227 x other newcomers' characteristics + .515 x long time residents' characteristics.

TABLE 9

FAMILY SIZE COMPARISONS
ROCK SPRINGS, WYOMING, AND THE UNITED STATES[a]

Place		Average Number of Persons Per Family
Rock Springs:	Total Population	3.62
	Long Time Residents	3.78
	Newcomer Construction Workers	3.59
	Other Newcomers	3.29
Wyoming		3.55[b]
United States		3.57[b]

---

[a] For the purposes of this report, a family is composed of a head of household and other household members related to the head by blood, marriage, or adoption. Spouses and children were the only relatives of the head included in these data. All families included at least two persons.

[b] Source: U.S. Bureau of the Census, 1970 Census of Population: Characteristics of the Population, United States Summary (Washington, D.C., 1973), p. 1-1628.

As the table indicates, all groups in Rock Springs, including newcomer construction workers, had fairly large family sizes, and this has important implications for housing demand and for demands on community facilities and services in communities affected by construction of energy-related facilities. Newcomers who bring their families (and fairly large ones) to these communities will make substantial demands on the entire range of community services.

Sixty percent of all the households interviewed in Rock Springs included children of the head. Using the family characteristics data obtained in the Household Survey, the numbers of children in each age group (for long time residents, newcomer construction workers, and other newcomers), for every 100 families in Rock Springs, shown in Table 10, could be expected.

TABLE 10

AVERAGE NUMBER OF CHILDREN IN VARIOUS AGE CATEGORIES (FOR EACH 100 FAMILIES) ROCK SPRINGS, WYOMING

Age Category	Long Time Residents	Newcomer Construction Workers	Other Newcomers	Total Population[a]
Under 5	35	58	62	47
5-11	78	57	48	66
12-14	22	14	17	19
15-17	28	23	18	24
18-19	15	5	5	10
20-24	6	2	1	4
25 or over	2	1	0	1
TOTAL	186	160	151	171

---

[a] Figures for the total population are weighted, based on the actual proportions of the total population formed by the three subpopulations found in Phase I of the sampling procedure.

As shown in Table 10, there was an average of 171 children included in every 100 families in Rock Springs, or 1.7 children per family for the total population. For long time residents, 186 children per 100 families (1.9 children per family) could be expected; for newcomer construction workers, 160 children per 100 families (1.6 children per family) would be expected; and for other newcomers, 151 children per 100 families would be expected (1.5 children per family).

The highest proportion of one person households in Rock Springs was in the newcomer construction worker group (18.1 percent of those households); 12.4 percent of other newcomer households consisted of only one person; and 11.5 percent of the long time resident households were composed of only one person. All of these groups had fewer one person households than does the U.S. population, in which 19 percent of all households are one person households.[7] Table 11 shows the distribution of households by size of household for Rock Springs and the United States. All

TABLE 11

HOUSEHOLD DISTRIBUTION BY SIZE OF HOUSEHOLD ROCK SPRINGS AND THE UNITED STATES

Size of Household	Percentage of Households				
	Rock Springs				United States[c]
	Long Time Residents	Newcomer Construction Workers	Other Newcomers	Total[b] Population	
One person	11.5	18.1	12.4	13.4	19.1
Two persons	26.0	21.5	22.1	24.0	30.8
Three persons	13.5	21.5	22.8	17.7	17.1
Four persons	21.9	23.7	29.0	24.0	15.6
Five persons	14.6	9.6	7.6	11.7	9.3
Six persons	7.3	1.7	2.8	4.8	4.4
Seven or more persons	5.2	3.9	3.5	4.5	3.8
TOTAL[a]	100.0	100.0	100.0	100.0	100.0

[a] Totals may not add to 100.0 percent because of rounding.

[b] Figures for the total population are weighted using the proportions of the total population actually formed by the three subpopulations determined in Phase I of the sampling procedure.

[c] Source: U.S. Bureau of the Census, Consumer Income: Household Money Income in 1973 and Selected Social and Economic Characteristics of Households (Washington, D.C.: U.S. Government Printing Office, 1974), p. 14.

---

[7] U.S. Bureau of the Census, Consumer Income: Household Money Income in 1973 and Selected Social and Economic Characteristics of Households (Washington, D.C.: U.S. Government Printing Office, 1974), p. 8.

in all, Rock Springs residents (including all groups) tended to live in slightly larger households than average for the United States.

Most household heads were married. Table 12 compares marital status characteristics for long time residents, newcomer construction workers, and other newcomers. As one might expect, a larger proportion of construction workers than of any other group had never married. In fact, 56 percent of all respondents who said they had never married lived in construction worker households.

TABLE 12

MARITAL STATUS OF HOUSEHOLD HEADS
ROCK SPRINGS, WYOMING

	Percentage of Household Heads		
Marital Status	Long Time Residents	Newcomer Construction Workers	Other Newcomers
Now Married	77.1	77.4	84.1
Widowed or Divorced	15.6	5.6	3.4
Never Married	7.3	16.9	12.4
TOTAL[a]	100.0	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

2. Age

Median ages for all groups in Rock Springs were younger than for Wyoming and the United States. Table 13 compares median ages for Rock Springs, Wyoming and the United States.

It is obvious from Table 13 that the newcomers to Rock Springs were younger than the long time residents. The relative youth of the newcomer population is further illustrated in Table 14 where age distribution of household heads by group is presented.

TABLE 13

MEDIAN AGE COMPARISONS ROCK SPRINGS, WYOMING, AND U.S. POPULATIONS

Group		Median Age
Rock Springs:	Long Time Residents	24.10
	Newcomer Construction Workers	22.03
	Other Newcomers	22.67
Wyoming		27.20[a]
United States		28.10[a]

---

[a] Source: U.S. Bureau of the Census, 1970 Census of Population: Characteristics of the Population, United States Summary (Washington, D.C., U.S. Government Printing Office, 1973), p. 1-310.

The age distribution of the newcomer household heads in Rock Springs is significant in that 71 percent of them are of the ages generally associated with child-bearing and child-rearing. These people are likely to be beginning families and will ultimately demand more in community services, such as schools, recreation facilities, utilities, and housing.

TABLE 14

AGE DISTRIBUTION OF HOUSEHOLD HEADS ROCK SPRINGS AND THE UNITED STATES

Age Categories	Percentage of Household Heads				
	Rock Springs				United States[c]
	Long Time Residents	Newcomer Construction Workers	Other Newcomers	Total Population[b]	
14-24	5.2	26.3	16.7	13.3	8.4
25-34	25.0	42.8	58.3	37.2	20.5
35-44	31.3	15.4	15.9	23.7	16.8
45-64	25.1	14.8	9.1	18.8	34.5
65 or over	13.5	0.6	---	7.1	19.9
TOTAL[a]	100.0	100.0	100.0	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

[b] Figures for the total population are weighted using the proportions of the total population actually formed by the three subpopulations determined in Phase I of the sampling procedure.

[c] Source: U.S. Bureau of the Census, Consumer Income: Household Money Income in 1973 and Selected Social and Economic Characteristics of Households, (Washington, D.C.: U.S. Government Printing Office, 1974), p. 2.

Table 15 compares age distribution of all members of the population groups in Rock Springs with that of the U.S. population. This table further demonstrates the youth of the newcomers to Rock Springs by comparison with the long time residents and the U.S. population.

TABLE 15

AGE DISTRIBUTION
ROCK SPRINGS AND THE UNITED STATES

Age Categories	Percentage of Residents				
	Rock Springs				United States[c]
	Long Time Residents	Newcomer Construction Workers	Other Newcomers	Total Population[b]	
Under 15	34.0	32.2	35.4	33.8	28.4
15-19	10.6	10.0	7.4	9.7	9.4
20-24	5.8	15.4	11.3	9.5	8.1
25-34	14.6	24.3	32.2	21.1	12.2
35-44	15.8	9.5	9.1	12.7	11.4
45-54	6.7	6.3	3.9	6.0	11.5
55-64	7.0	1.9	0.4	4.2	9.1
65 or over	5.5	0.4	0.2	3.0	9.9
TOTAL[a]	100.0	100.0	100.0	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

[b] Figures for total population are weighted using the proportions of the total population formed by the three subpopulations determined in Phase I of the sampling procedure.

[c] Source: U.S. Bureau of the Census, 1970 Census of Population: Characteristics of the Population, United States Summary (Washington, D.C.: U.S. Government Printing Office, 1973), p. 1-263.

3. Education

The Rock Springs population was more highly educated than were the U.S. and Wyoming populations. A pattern of high educational attainments (in comparison with the United States and the state) has been observed for all but one of the study communities. From these data, it appears that newcomer construction workers usually finished high school, but rarely became college graduates. In fact, every other group, long time residents, other newcomers, Wyoming's population, and the U.S. population, had more college graduates than did Rock Springs' newcomer construction worker group. The group with the highest educational attainments was the other newcomers group. Nearly three times as many other newcomers as any other group were college graduates. See Table 16 for comparisons.

TABLE 16

EDUCATIONAL ATTAINMENTS
ROCK SPRINGS, WYOMING, AND THE UNITED STATES

Highest Educational Level Completed	Percentage of Residents				
	Rock Springs[b]			Wyoming[c]	United States[c]
	Long Time Residents	Newcomer Construction Workers	Other Newcomers		
Less than High School Graduation	24.9	16.5	8.3	37.1	47.7
High School Graduate	45.1	40.6	23.4	36.2	31.1
Some College	16.2	25.8	33.6	14.8	10.6
College Graduate	6.4	6.1	21.9	7.2	6.1
Some Graduate School	0.6	1.3	4.5	4.6	4.6
Advanced Degree	4.0	1.3	5.7		
Vo-Tech School	2.9	8.4	2.6	---	---
TOTAL[a]	100.0	100.0	100.0	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

[b] Educational attainments for household heads and spouses are included for Rock Springs, Data for the United States and for Wyoming were reported for persons 25 and over. Because of the method of data analysis for the Household Survey, it was not possible to present data for persons 25 and over only. Some household heads and spouses were under 25, but only four listed their occupations as "student", and so the rest were assumed to have completed their educations. As a result of the procedure of including only heads and spouses in this analysis, some household members over 25 (14 persons) were left out of Rock Springs' educational attainment data presented here.

[c] Source: U.S. Bureau of the Census, 1970 Census of Population: Characteristics of the Population, United States Summary (Washington, D.C.: U.S. Government Printing Office, 1973), pp. 1-493, 1-494.

Table 17, which presents educational attainment data for household heads, further illustrates these trends.

TABLE 17

EDUCATIONAL ATTAINMENTS OF HOUSEHOLD HEADS ROCK SPRINGS AND THE UNITED STATES

Highest Educational Level Completed	Percentage of Household Heads			
	Rock Springs			United States[b]
	Long Time Residents	Newcomer Construction Workers	Other Newcomers	
Less than High School Graduation	22.9	13.0	6.2	39.1
High School Graduate (4 yrs)	46.9	37.9	22.1	32.7
Some College	14.6	29.4	31.0	13.1
College Graduate	6.3	7.3	26.9	15.1
Some Graduate School	---	1.7	3.4	
Advanced Degree	7.3	2.3	9.0	
Vo-Tech School	2.1	8.5	1.4	—
TOTAL[a]	100.0	100.0	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

[b] Source: U.S. Bureau of the Census, Consumer Income: Household Money Income in 1973 and Selected Social and Economic Characteristics of Households (Washington, D.C.: U.S. Government Printing Office, 1974), p. 7.

The higher educational attainments of other newcomers are significant in that, if in fact most construction workers are transient and will leave after the project's construction period is over, and if the other newcomers are more permanent, the town will have a larger pool of people with high educational attainments. These people generally are the ones with professional and managerial skills who are essential to a community's ability to cope with problems which might occur, its ability to plan for the future, even to its ability to provide the basic services necessary to sustain a minimum quality of life. The transiency of newcomers, both construction workers and others, will be investigated in another section of this report.

4. Occupation and Industry

About 4 percent of the respondents to the Household Survey in Rock Springs were unemployed. Most of these unemployed persons had been construction workers. This was one of several indications that the boom was over (summer, 1975). Respondents repeatedly referred to the boom in the past tense. At the time of this report, it was too early to be sure, but indications were that extreme population growth had ended in Rock Springs. The Jim Bridger plant had implemented one major layoff just before the Household Survey began, and during the survey, there were widespread rumors that another was imminent.

Of all the construction workers responding to the Household Survey, 32 percent said they worked at the Jim Bridger electrical generating plant, and 45 percent said they worked on other energy-related projects.

Table 18 compares occupations of newcomers and long time residents in Rock Springs. As Table 18 indicates, a greater proportion of newcomers (16.2 percent) than long time residents (8.3 percent) were in nonconstruction professional fields. This supports the hypothesis suggested in the section on education that the more highly educated other newcomers would increase the pool of professional skills needed by growing communities.

TABLE 18

OCCUPATIONS OF HOUSEHOLD HEADS
ROCK SPRINGS

Occupation Category	Percentage of Household Heads	
	Long Time Residents	All Newcomers[b]
Construction Employment:	10.4	53.2
Professional, technical, kindred	1.0	5.4
Supervisory	---	2.7
Craftsmen and kindred	3.1	32.8
Operatives, except transport	4.2	4.5
Transport equipment operatives	---	0.9
Laborers	2.1	6.9
Non-Construction Employment:	89.4	47.0
Professional, technical, kindred	8.3	16.2
Managerial	15.6	9.4
Sales	5.2	2.6
Craftsmen, foremen, kindred	13.5	4.2
Clerical and kindred	1.0	1.3
Operatives, except transport	3.1	6.1
Transport equipment operatives	2.1	1.3
Laborers, except farm	9.4	1.0
Farmers, farm foremen, laborers	1.0	---
Service, except private household	11.5	3.9
Retired	13.5	---
Housewife	1.0	---
Unemployed	4.2	1.0
TOTAL[a]	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

[b] Figures for newcomers are weighted according to the actual proportions of that group formed by "newcomer construction workers" and "other newcomers", determined in Phase I of the sampling procedure.

Table 19 shows employment by industry for employed long time resident and newcomer household heads in Rock Springs. It is interesting that only 4.5 percent of the long time residents were employed on energy-related construction projects. There were indications that little effort was given to hiring local residents when the Jim Bridger plant began to be built. The hiring halls for the unions were not in Rock Springs and it was said that jobs at the plant were advertised in union magazines before Rock Springs residents knew much about the project. Employment data from the Household Survey bear this out.

TABLE 19

INDUSTRY OF EMPLOYED HOUSEHOLD HEADS ROCK SPRINGS, WYOMING[a]

Industry	Percentage of Employed Household Heads	
	Long Time Residents	Newcomers[c]
Agriculture, Forestry, Fisheries	1.3	1.0
Mining	20.8	4.7
Construction:		
Jim Bridger plant	1.3	17.9
Other energy-related	3.9	24.9
Nonenergy-related	10.4	11.5
Manufacturing	6.5	0.7
Transportation, Communications, Utilities	22.1	18.7
Wholesale Trade	---	0.7
Retail Trade	10.4	5.7
Finance, Insurance, Real Estate	3.9	1.3
Personal Services	5.2	1.7
Health and Recreation	3.1	1.3
Professional and Educational Services	7.8	7.7
Public Administration	2.6	2.3
TOTAL[b]	100.0	100.0

---

[a] Retired and unemployed persons and students were not included for this analysis.

[b] Totals may not add to 100.0 percent because of rounding.

[c] Figures for newcomers are weighted according to the actual proportions of that group formed by "newcomer construction workers" and "other newcomers", determined in Phase I of the sampling procedure.

Of all employed construction workers in Rock Springs, 73.2 percent were construction workers before they took their present jobs. Of those workers, 79 percent stayed in the same occupation group (e.g., craftsmen, foremen, kindred) from their previous job to their present job. Of the construction workers who listed nonconstruction work as their previous jobs, some (20 percent) stayed in the same occupation group, but moved from other industries into the construction industry. The construction occupation category most frequently mentioned as the household head's present job by those from other industries was "craftsmen, foremen, and kindred," (49 percent of those having changed industries). Some of the previous occupations of those becoming craftsmen or foremen in the construction industry were professional, technical, and kindred (12.5 percent), managerial (20.8 percent), sales (8.3 percent), farm workers (8.3 percent), service workers (12.5 percent), and craftsmen (12.5 percent).

There was not as much job switching with the coming of the boom as one might expect. This finding supports the rumors and suggestions that hiring for Jim Bridger and subsequent projects was done elsewhere than in Rock Springs. If, in fact, Rock Springs residents had had good opportunities for working on the construction projects, there would very likely have been more evidence of job switching. This, coupled with the fact that only 10 percent of all long time residents were construction workers, supports the finding in the Project Survey that only 29.6 percent of the Jim Bridger workers were local (living in the same town as they were before they started working on the project) and of these, slightly more than half (58 percent) were from Rock Springs.

When newcomer construction workers were asked why the household head switched jobs, most respondents (92.9 percent) predictably gave job-related answers. Most frequent among these was "previous job terminated" (34 percent). Other frequently mentioned reasons were "job with better pay" (21 percent) and "more satisfying job" (18 percent). Among the nonjob-related reasons were "desire to move away from old residence," and "desire to live in Wyoming".

An interesting difference among long time resident, newcomer construction worker, and other newcomer households in terms of labor force participation by secondary workers was identified. In long time resident households, 36.4 percent of the spouses had jobs, and 11.5 percent of the households included other household members who work. In newcomer construction worker households, only 13.5 percent of the spouses had jobs, and 12 percent of the households included other workers related to the head.

One might suppose from this that job opportunities for secondary workers were fewer for newcomers to the area, but that hypothesis breaks down when other newcomers are included for analysis. Nearly 31 percent of other newcomer spouses had jobs. Hypotheses with respect to age, the high income of the household head, education, and the higher mobility of many of the families would have to be investigated in order to better understand this phenomenon.

Spouses of household heads in Rock Springs most frequently worked as service workers, clerical workers, and professional or technical workers. Table 20 shows occupations of working spouses, and Table 21 shows the industries in which these workers were employed.

TABLE 20

OCCUPATIONS OF SPOUSES ROCK SPRINGS, WYOMING[a]

Occupation	Percentage of Working Spouses	
	Long Time Residents	Newcomers
Professional, technical, related	25.0	28.6
Managerial	---	5.4
Sales	6.2	1.8
Craftsmen, foremen, related	---	1.8
Clerical	18.8	32.1
Operatives, except transport	6.2	5.4
Service workers	43.8	17.9
Private household workers	---	1.8
Armed Services	---	1.8
Students	---	3.6
TOTAL[b]	100.0	100.0

---

[a] Retired spouses were not included.

[b] Totals may not add to 100.0 percent because of rounding.

TABLE 21

INDUSTRY OF EMPLOYED SPOUSES ROCK SPRINGS, WYOMING[a]

Industry	Percentage of Working Spouses	
	Long Time Residents	Newcomers
Mining	6.2	---
Construction:		
Energy-related	---	1.9
Nonenergy-related	6.2	3.7
Manufacturing	---	1.9
Transportation, Communications, Utilities	3.1	11.1
Retail Trade	12.5	11.1
Finance, Insurance, Real Estate	6.2	5.6
Personal Services	9.4	18.5
Heath and Recreation	37.5	16.7
Professional and Educational Services	12.5	25.9
Public Administration	3.1	1.9
Armed Forces	---	1.9
Other	3.1	---
TOTAL[b]	100.0	100.0

[a] Students were not included for this analysis.

[b] Totals may not add to 100.0 percent because of rounding.

5. Income

Rock Springs' residents interviewed in the Household Survey had higher incomes on the average than did residents of any other community for which data were collected in this study. The median annual income for the United States in 1973 was $10,512[8], while that for long time residents in Rock Springs in 1975 was $14,923. If the U.S. figure is inflated by 12 percent for 1974 and 8 percent for 1975, it would be $12,715. Long time residents median income in Rock Springs was 17.3 percent higher than the inflated U.S. median.

---

[8] U.S. Bureau of the Census, Consumer Income: Household Money Income in 1973 and Selected Social and Economic Characteristics of Households (Washington, D.C.: U.S. Government Printing Office, 1974), p. 1.

TABLE 22

MEDIAN ANNUAL HOUSEHOLD INCOME ROCK SPRINGS AND THE UNITED STATES

Group		Median Income
Rock Springs:	Long Time Residents	$ 14,923
	Newcomer Construction Workers	20,087
	Other Newcomers	16,368
United States		10,512[a]

---

[a] Source: U.S. Bureau of the Census, Consumer Income: Household Money Income in 1973 and Selected Social and Economic Characteristics of Households (Washington, D.C., U.S. Government Printing Office, 1974), p. 1.

While all groups had median incomes higher than that for the U.S. population as a whole, the long time residents had incomes lower than those of the newcomers, especially the newcomer construction workers. Median income for newcomer construction workers was 35 percent higher than for long time residents. Almost 22 percent of the long time residents had incomes of less than $10,000, compared to 2.8 percent of newcomer construction workers and 11.1 percent of the other newcomers.

The higher incomes of newcomers can have important implications for the communities into which they move. The newcomers will bring more disposable income to the community, and some of it will be spent there. The larger the community and the more commercial facilities it has, the greater will be its share of the newcomers' disposable incomes. Incomes in the community will generally increase as a result. But there can also be some division between newcomers and long time residents simply as a result of the income differences. Long time residents might resent the affluence of the new residents and isolate themselves from them. This can be an important factor in the isolation and alienation newcomers can feel in these communities.

TABLE 23

ANNUAL HOUSEHOLD INCOME
ROCK SPRINGS AND THE UNITED STATES

Income Category	Percentage of Households				
	Rock Springs				United States[d]
	Long Time Residents	Newcomer Construction Workers	Other Newcomers	Total[c] Population	
Less than $4,000	7.3	0.6	1.4	4.2	17.5
$4,000-$5,999	5.2	1.1	2.1	3.4	10.4
$6,000-$7,999	4.2	---	0.7	2.3	9.9
$8,000-$9,999	5.2	1.1	6.9	4.5	9.7
$10,000-$11,999	8.3	3.4	6.9	6.7	9.7
$12,000-$14,999[a]	13.5	7.9	12.4	11.8	12.9
$15,000-$24,999[a]	41.6	57.1	56.4	49.0	22.1
$25,000 and over[a]	14.5	27.2	12.5	17.3	7.8
No response	----	1.7	0.7	0.6	---
TOTAL[b]	100.0	100.0	100.0	100.0	100.0

---

[a] Income data for the Household Survey were collected for $2,000 intervals. These categories do not match published U.S. Census income categories exactly. The $12,000-$14,999 category is a census category which corresponds to the $12,000-$13,999 category in the Household Survey. The $15,000-$24,999 category is a census category which corresponds to five Household Survey categories including incomes between $14,000 and $23,999. The $25,000 and over category is a census category which corresponds to nine Household Survey categories including incomes of $24,000 and over.

[b] Totals may not add to 100.0 percent because of rounding.

[c] Figures for the total population are weighted using the proportions of the total population actually formed by the three subpopulations determined in Phase I of the sampling procedure.

[c] Source: U.S. Bureau of the Census, Consumer Income: Household Money Income in 1973 and Selected Social and Economic Characteristics of Households (Washington, D.C.: U.S. Government Printing Office, 1974), p. 14.

Undoubtedly, however, most long time residents have benefited economically from the boom. The median income for families and unrelated individuals in the United States increased by 36.5 percent from 1969 to 1973,[9] but in Rock Springs, the median income for long time residents increased by 66.4 percent from 1969 to 1975.[10]

Respondents to the Household Survey in Rock Springs were asked about their household expenditures, how much they spent on various goods and services, and how much of their spending was done locally (within Rock Springs). The ratio of total household expenditures and savings to gross income varied only slightly among the three groups: for long time residents and newcomer construction workers, the ratio was .73; for other newcomers, it was .76. The income unaccounted for by expenditures is composed of personal income taxes, social security taxes, other payroll deductions not included in expenditures, and any underestimation of expenditures by the respondent. The ratio of local to total expenditures (exclusive of savings) for the three groups was .70 for long time residents; .60 for newcomer construction workers; and .68 for other newcomers. In other words, from three-fifths to two-thirds of Rock Springs' residents' household expenditures were made locally. Table 24 shows average monthly expenditures by category for Rock Springs residents.

---

[9] U.S. Bureau of the Census, 1970 Census of Population: Characteristics of the Population, United States Summary (Washington, D.C.: U.S. Government Printing Office, 1973), p. 1-957, and Consumer Income: Household Money Income in 1973 and Selected Social and Economic Characteristics of Households (Washington, D.C.: U.S. Government Printing Office, 1974), p. 1.

[10] U.S. Bureau of the Census, 1970 Census of Population: General Social and Economic Characteristics, Wyoming (Washington, D.C.: U.S. Government Printing Office, 1971), p. 52-132.

TABLE 24

AVERAGE HOUSEHOLD EXPENDITURES BY CATEGORY
ROCK SPRINGS RESIDENTS

Expenditure Category	Long Time Residents		Newcomer Construction Workers		Other Newcomers	
	Average Monthly Expenditures	Average Local Monthly Expenditures	Average Monthly Expenditures	Average Local Monthly Expenditures	Average Monthly Expenditures	Average Local Monthly Expenditures
Housing	$ 114.81	$ 114.81	$ 181.16	$ 181.16	$ 236.21	$ 236.21
Utilities	45.73	---[b]	48.26	---[b]	45.84	---[b]
Automobile Payments and Service	99.87	73.64	166.00	93.77	119.17	67.87
Insurance and Medical	60.41	16.16	65.69	14.74	52.83	10.68
Groceries	179.57	168.06	186.42	160.49	181.75	174.85
Amusements, Travel, and Other	270.11	180.90	376.42	178.32	307.45	179.45
TOTAL[a]	$ 820.53	$ 574.11	$ 1116.87	$ 646.96	$ 998.18	$ 682.72

---

[a] Adding the means for the individual expenditure categories will not result in the totals shown. The totals shown are means calculated from ungrouped data and are therefore more accurate than means derived by adding the individual means.

[b] Utilities expenditures were assumed to be nonlocal.

C. TRANSIENCY OF NEWCOMERS

Over 23 percent of the newcomers to Rock Springs came from other places in Wyoming, and another 33 percent came from states contiguous to Wyoming (Colorado, Idaho, Montana, Nebraska, South Dakota, and Utah), with Utah being mentioned most frequently (15.6 percent of all newcomers) as a previous residence. Former residents of all parts of the United States were represented in the Household Survey sample in Rock Springs. Surprisingly, a significant percentage (32.5 percent) of newcomers had lived for 6 years or longer at their previous homes, and 20 percent had lived at their previous residences for 15 years or longer. This might be reflective of the national economic situation. High unemployment in the rest of the country might be increasing the attractiveness of the energy-rich states to residents of other areas. It is well known that job opportunities exist in the western boom towns. In fact, 41.9 percent of the newcomers to Rock Springs gave "job opportunities" as their reason for moving there. Another 47 percent gave other job-related reasons.

Most newcomers (67.5 percent), however, had lived in their previous places of residence for 5 years or less. More than 40 percent had lived at their previous homes for fewer than 2 years.

All respondents were asked about their plans for staying in the area. Long time residents usually answered that they planned to remain in Rock Springs. Fewer newcomer construction workers than any other group planned to settle down, and more of this group than any other planned to stay as long as work was available. See Table 25 for differences in plans for staying among the three groups.

Of these three groups, newcomer construction workers appeared to be the most transient: only 11 percent planned to settle in Rock Springs, 37 percent indicated they would stay only as long as work was available, and 7 percent planned to leave immediately. It is surprising, however, to see that 36 percent planned to stay until retirement. It is possible that these are construction workers who feel that Rock Springs will continue to have energy-related construction for a period of years and plan to take advantage of the opportunity to work and be with their families in one place for a while.

The other newcomers showed a different pattern. Quite a large proportion (29.4 percent) planned to settle in the area, 24 percent planned to leave at retirement, and 25 percent planned to stay until transferred.

The fact that a significant proportion planned to stay until transferred fits well with the fact that this group had the greatest number of professionals. Professionals employed by large companies are frequently transferred as they are promoted within the corporation. These people apparently had more job security than the newcomer construction workers, indicated in the infrequency of their answers in the "stay as long as work is available" category in comparison with the frequency with which construction workers chose that category. Also, construction workers rarely chose the "stay until transferred" category, while it was the second most frequent choice of other newcomers.

TABLE 25

PLANS FOR STAYING IN THE AREA
ROCK SPRINGS RESIDENTS

Plans	Percentage of Residents		
	Long Time Residents	Newcomer Construction Workers	Other Newcomers
Settle down here	85.4	10.7	29.4
Leave immediately	1.0	6.8	1.4
Stay as long as work is available	2.1	36.7	7.0
Uncertain	2.1	3.4	11.2
Leave at retirement	5.2	36.2	24.5
Stay until transferred	2.1	3.4	25.2
Other	2.1	2.8	1.4
TOTAL[a]	100.0	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

Answers to the question about plans for staying in the area did not differ significantly among residents of the post- and pre-impact communities and long time residents of the currently affected communities. It appears then, that original residents of these communities, while some of them may have been unhappy about the presence of construction projects (see section on "Attitudes of Long Time Residents")were not so unhappy as to break their community ties and leave. By far the majority of these residents indicated that they planned to settle down in the area.

It seems that newcomers as a group were transient, but that most moved within a fairly circumscribed area--the mountain states. Of all newcomers, construction workers showed a more transient pattern than anyone else. Their plans for staying or leaving were, for the most part, contingent on work availability. Further, 44 percent of all newcomer construction workers had lived at their previous places of residence for fewer than 2 years, compared to 36 percent for other newcomers.

This is a pattern to be found among newcomers in all of the currently affected communities studied here. Newcomers in these towns may be part of a highly mobile group of people whose changes of residence depend entirely on their jobs. It may be that they spend their lives moving from town to town, and never really become integrated into any community. If this is so, it has important implications for the communities into which they move in terms of social impact problems. In Rock Springs, the mental health center's case load has increased greatly,[11] and most of its new cases were long time residents who were having difficulty coping with the drastic changes brought about by the influx of huge numbers of newcomers. Indications are that many newcomers are quite resilient, frequent changes of residence having become a way of life for them. The isolation and alienation of newcomers remains a problem, but it may not be as severe as the anomic situation into which long time residents are plunged when faced with the enormous changes in their way of life that have been brought about by large construction projects.

D. COMMUNITY INTEGRATION

A question aimed at finding indicators of the inclusion or isolation of newcomers to the community was asked in the Household Survey. Respondents were asked to rank the three places where they met most of their friends in terms of their importance as sources of social contacts. All three groups of respondents mentioned "work" more frequently than any other source of social contact. It can be determined from the top ranked sources of friends for each group that other newcomers relied much more heavily than any other group on work as a source of friends--56.6 percent of them ranked "work" first, while 45.3 percent of the newcomer construction workers did so, and 33.7 percent of the long time residents did so. Long time residents ranked "church", "clubs", and "school" first more frequently than did the other groups, and newcomer construction workers ranked "neighborhood" first more frequently than did the other groups.

---

[11] According to the Southwest Counseling Service in Rock Springs, the mental health clinic's caseload has increased by 885 percent since 1970.

When the top three sources of social contact for each group are combined, a slightly different pattern emerges. Other newcomers exhibited similarities to long time residents in their degree of reliance on church and clubs, while they were more like newcomer construction workers in reliance on most other sources of social contacts. Table 26 illustrates.

TABLE 26

SOURCES OF SOCIAL CONTACT ROCK SPRINGS RESIDENTS[a]

Source	Percentage of Residents		
	Long Time Residents	Newcomer Construction Workers	Other Newcomers
Work	62.5	77.3	76.6
Church	24.0	17.4	25.5
Bars	4.2	12.2	6.9
Clubs and Community Activities	19.8	9.9	18.6
Recreation	6.3	9.3	8.2
Relatives	9.4	3.5	3.4
Neighborhood	38.5	46.5	42.8
School	28.1	3.5	3.4
Other	36.5	29.1	15.2

---

[a] This table combines responses for the three most important sources of social contact, so percentages add to more than 100.0 percent.

Responses to the question about social contact appear, from data collected for this study, to vary more according to size of community than according to any other variable, including community status as pre-impact, post-impact, or currently affected. Responses to the question by Killdeer and Center, North Dakota respondents resembled each other fairly closely, and these are the only two study communities with populations of less than 1000. Responses by residents of Conrad and Forsyth, Montana and Langdon, North Dakota also resembled each other closely, and these communities have small populations (ranging in size from 3000 to 4000 people). Answers to this question by St. George residents and by Green River, Rock Springs, and Colstrip long time residents differed significantly from those in the smaller communities, one major difference being that respondents in the larger communities and in Colstrip relied more heavily on work for social contact than did residents of the smaller communities. It appears, then, that status as pre-impact, post-impact, or currently affected community influences the socializing patterns of residents less than does community size.

E. SATISFACTION WITH SERVICES

Respondents to the Household Survey were asked to indicate how satisfied they were with many community services, including law enforcement, fire protection, utilities, garbage collection, streets and roads, medical services, entertainment, shopping facilities, schools, and housing. The data on respondents' satisfaction with services can be compared with the capital facilities data (in the Appendix) collected at the time of the Household Survey, in order to determine how respondents' perceptions of the adequacy of public facilities accord with an objective evaluation of services and facilities. This provides a measure of the respondents' satisfaction with living in the community.

Comparison of responses by long time residents, newcomer construction workers, and other newcomers in Rock Springs reveals an interesting pattern. Long time residents were generally more satisfied with services than both newcomer groups, and the other newcomers showed more dissatisfaction with services than did any other group. Newcomer construction workers answered "uncertain" more frequently than did members of the other groups. They rarely showed a higher level of satisfaction with any particular service than the other groups, but they also rarely showed a higher level of dissatisfaction. Table 27 contrasts the levels of satisfaction and dissatisfaction indicated by long time residents, newcomer construction workers, and other newcomers in Rock Springs.

TABLE 27

SATISFACTION/DISSATISFACTION WITH COMMUNITY FACILITIES ROCK SPRINGS RESIDENTS[a]

Service		Percentage of Residents		
		Long Time Residents	Newcomer Construction Workers	Other Newcomers
Law Enforcement:	Satisfied	46.9	48.1	33.8
	Dissatisfied (or No Service)[b]	48.0	31.1	39.3
Fire Protection:	Satisfied	83.4	58.7	44.8
	Dissatisfied (or No Service)	9.4	10.7	17.9
Water:	Satisfied	85.4	67.2	78.7
	Dissatisfied (or No Service)	12.5	28.8	16.5
Sewer:	Satisfied	69.8	72.9	73.8
	Dissatisfied (or No Service)	28.2	21.5	17.2
Garbage Collection:	Satisfied	51.0	56.8	34.5
	Dissatisfied (or No Service)	42.7	37.0	54.5
Streets and Roads:	Satisfied	24.0	28.4	17.4
	Dissatisfied (or No Service)	67.7	67.6	77.9
Medical Services:	Satisfied	50.0	33.4	30.4
	Dissatisfied (or No Service)	44.8	48.1	57.3
Entertainment:	Satisfied	47.9	42.3	41.4
	Dissatisfied (or No Service)	37.5	45.2	51.1
Shopping Facilities:	Satisfied	75.0	65.0	46.2
	Dissatisfied (or No Service)	21.9	29.4	50.4
Schools:	Satisfied	68.5	35.5	43.1
	Dissatisfied (or No Service)	24.3	15.3	21.5
Housing Availability:	Satisfied	19.8	14.7	15.2
	Dissatisfied (or No Service)	70.9	78.5	79.4
Housing Quality:	Satisfied	31.3	19.8	26.2
	Dissatisfied (or No Service)	52.0	61.0	67.6

---

[a] Totals of "satisfied" and "dissatisfied" categories will not usually add to 100.0 percent because some respondents answered "uncertain", and those percentages are not included in this table.

[b] The category "No Service" was included with "Dissatisfied" because frequently the respondent indicated there was no service for a category when in fact that service was provided. It was felt that this was a measure of dissatisfaction in those cases because the service would have to be fairly poor for the respondent not to know it was being provided.

According to data collected on Rock Springs capital facilities, recorded in some detail in the appendix to this report, there were inadequacies in the following services: police department, fire protection, solid waste disposal, streets and roads, medical services, recreation, schools, and housing quality and availability. In addition, the sewer system was barely adequate. The only service able to meet objective standards was the water supply and treatment facilities. None of this is surprising in view of the extreme population growth which has occurred in Rock Springs in the past few years. What is surprising is that many of the inadequate services were satisfactory to a majority of respondents. The services for which "very satisfied" or "satisfied" was answered by a majority of respondents were: fire protection, water supply, sewer system, garbage collection, and shopping facilities. The only services for which dissatisfaction was indicated by a majority of respondents were streets and roads, housing availability, and housing quality.

When the results of the Household Survey in Rock Springs are compared with those of the surveys in the other study communities, it is apparent that respondents in Rock Springs were, on the whole, less satisfied with services than residents of any other community. However, the only facilities with which Rock Springs respondents indicated great dissatisfaction were the ones whose levels of service were unmistakably low (i.e., streets and housing). Some of this is difficult to explain, since by comparison with other study communities, with the possible exception of Colstrip, Rock Springs has less adequate services, a less appealing environment, and many more apparent problems. It is possible that Rock Springs' residents are more apathetic than the residents of the other communities, that they are more sympathetic to the difficulties the town is having in providing adequate services in a short period of time for a population that has increased by 2 1/2 times, or that the economic rewards accruing to them diminish their sensitivity to the apparent problems.

Answers to the questions on satisfaction with services were also analyzed according to education of the household head. Households where the head had less than a college degree tended to be satisfied with services--54.5 percent of the responses made by these households about community services were "very satisfied" or "satisfied", and 45.5 percent were "dissatisfied" or "very dissatisfied".[12] Those households in which the head had a college degree or more education tended to be less satisfied with services--47.9 percent of the responses from these households indicated satisfaction, and 52.1 percent indicated dissatisfaction. Similarly, as household income increased, so did dissatisfaction with services. Table 28 illustrates the differences in satisfaction with services among three income groups.

TABLE 28

SATISFACTION/DISSATISFACTION WITH SERVICES
ACCORDING TO HOUSEHOLD INCOME
ROCK SPRINGS RESIDENTS

Annual Household Income	Percentage of Income Group		
	"Very Satisfied" or "Satisfied"	"Dissatisfied", "Very Dissatisfied" or "No Service"	Total
Less than $12,000	59.3	40.7	100.0
$12,000-$19,999	51.9	48.1	100.0
$20,000 or more	37.6	62.4	100.0

These findings are not surprising in view of the fact that the other newcomers had, as a group, the most education, and showed greater dissatisfaction with services than any other group. Also, both newcomer groups had higher incomes than did long time residents, and they were generally less satisfied with services than were the long time residents.

F. HOUSING PREFERENCES

Most respondents to the Household Survey in Rock Springs owned or were buying their homes. The rest were renters.

---

[12] "Uncertain" responses were not included for these analyses. The intention was to compare satisfaction and dissatisfaction among respondents according to education and income characteristics to determine if these characteristics could have a bearing on their answers.

Long time residents tended to own their homes more frequently than did the newcomers, especially the newcomer construction workers. Table 29 shows home ownership for the population groups in Rock Springs.

TABLE 29

HOME OWNERSHIP ROCK SPRINGS RESIDENTS

Group	Percentage of Households		
	Own	Rent	Total
Long Time Residents	80.0	20.0	100.0
Newcomer Construction Workers	48.8	51.2	100.0
Other Newcomers	65.2	34.8	100.0

As the table shows, newcomer construction workers rented their homes more frequently than they owned them. This was not true for any other group. This might be further evidence that this group was more transient than the other groups, since these households have not bought homes nearly as frequently as other newcomers have. Additionally, more newcomer construction workers lived in mobile homes than any other group. This might be considered another indication of transiency. Table 30 shows in some detail the distribution of respondent households among housing types.

It is apparent that newcomers and long time residents were quite different with respect to the type of housing in which they lived. Much of this can be explained by the fact that housing construction lagged behind population growth, and mobile homes were virtually the only housing choice available to newcomers as rental housing was quickly filled. The most interesting difference shown in the table, however, is that between newcomer construction workers and other newcomers. The proportion of newcomer construction workers living in mobile homes was twice that of other newcomers. It must be assumed that newcomer construction workers chose to live in mobile homes more frequently than did the other groups. However, newcomer construction workers indicated more dissatisfaction with the type of housing in which they lived than any other group. Nearly 42 percent of these households indicated that a different type of housing would be preferable.

TABLE 30

TYPE OF DWELLING LIVED IN ROCK SPRINGS RESIDENTS

Dwelling Type	Percentage of Households		
	Long Time Residents	Newcomer Construction Workers	Other Newcomers
Single family:			
2 bedrooms	20.4	3.4	9.1
3 bedrooms	35.5	6.3	26.6
4 bedrooms	15.1	2.9	11.2
5 bedrooms	3.2	0.6	3.5
Other	6.5	5.1	5.6
Duplex, Townhouse, Condominium	2.2	1.1	0.7
Apartment	6.5	14.3	17.5
Mobile Home	9.7	47.4	23.8
Other	1.1	18.9	2.1
TOTAL[a]	100.0	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

Apartment dwellers appeared to be the most dissatisfied--56.9 percent of these respondents said a different type of housing would be preferable. Of the mobile home dwellers, 44.7 percent were dissatisfied; 30.6 percent of those living in "other" housing were dissatisfied; 16.7 percent of those living in duplexes and townhouses were dissatisfied; and only 10.6 percent of the single family housing dwellers were dissatisfied. Almost all (96 percent) of the dissatisfied respondents indicated they would prefer to live in "other single family" housing.

When asked why they were not living in the preferred type of housing, dissatisfied respondents most frequently

(51.7 percent of the time) indicated that it was too expensive. The next most frequently given response was "unavailable" (31.5 percent of responses). Only 5.4 percent gave "temporary job" as a reason.

G. ATTITUDES OF LONG TIME RESIDENTS ABOUT EFFECTS OF PROJECTS

Long time residents in Rock Springs were asked a few questions about how they felt about the effects which the construction projects in the area were having on the community and its residents. When asked whether the effects of the construction were the same, better or worse than they had originally expected, only 9.5 percent of the respondents answered "better", 49.5 percent said the effects were "worse", and 41.1 percent answered "the same". There was a tendency for persons who had lived in Rock Springs for 15 years or longer to answer "worse" more frequently than other respondents. Fifty-six percent of these respondents thought the effects were worse, while only 24 percent of the other respondents thought so. There was also a tendency for higher income respondents to think that the effects of the construction were worse than they expected: 44.8 percent of respondents with household incomes of less than $12,000 annually answered "worse"; 46.7 percent of the respondents with household incomes of between $12,000 and $20,000 annually answered "worse"; and 61.9 percent of those with incomes of $20,000 or more answered "worse". The reason given most frequently for thinking the effects were better than expected was, "job opportunities" (one-third of those thinking the effects were better). Those given most frequently for thinking the effects were worse were, "inadequate community facilities" (74 percent of respondents thinking effects were worse than expected) and, "caused town problems" (27.7 percent).

When asked whether they were glad or unhappy that the projects were in the area at all, half of the respondents said they were glad. Respondents with higher educational attainments (some college or higher) were more frequently glad (61 percent of the time) than those with less education. Similarly, the higher the respondent's household income, the more likely he was to be glad the projects came: 38 percent of those with annual incomes of less than $12,000 were glad the projects were begun; 52.3 percent of those with incomes of $12,000-$19,999 were glad; and 71 percent of those with incomes of $20,000 or more were glad. The reasons most frequently given for being glad the projects came to Rock Springs were, "job opportunities" (37.5 percent of the respondents who were glad) and, "financial benefits" (35.4 percent).

Nearly 45 percent of the respondents indicated that they were unhappy the projects came to town.[13] The reasons given most frequently for this were, "caused town problems" (41.9 percent of the respondents who were unhappy), "undesirable people arriving" (32.6 percent) and, "increased population" (30.2 percent).

H. ATTITUDES OF NEWCOMERS ABOUT LIVING IN ROCK SPRINGS

Most newcomers to Rock Springs came there for work-associated reasons, (i.e., job transfer, better paying jobs available, etc.). In fact nearly 89 percent of the newcomers originally came to town for these reasons. All newcomers were given a list of 18 descriptive words (for complete list, see Household Survey questionnaire in the Appendix) and asked to select the two or three words which they felt best described the community. Some of the words were descriptive in a positive way, some were negative and some were neutral.

Negative words (lonely, dull, unfriendly, isolated, difficult, expensive, and dirty) were chosen 64.3 percent of the time.[14] Positive words (easy, happy, modern, exciting, rewarding, friendly, and relaxed) were chosen 23 percent of the time, and neutral words (competitive, impersonal, conservative, and slow-moving) were chosen 12.7 percent of the time. Obviously, there can be some argument about the classification of these words into positive, negative, and neutral. For instance, "isolated" could be considered positive by some people, and "impersonal" might be considered negative rather than neutral. An attempt was made to attach the values that most respondents seemed to attach to these words.

The most frequently mentioned descriptive words were "expensive" (21.5 percent of all responses), "dirty" (18.3 percent of all responses), and "friendly" (11.6 percent of all responses).

Respondents were then asked to name the things they liked most about living in Rock Springs. The most frequent answers to this question fell into four groups: job-related factors (29.6 percent of all respondents), people-related answers, (e.g., friendly people) (26.9 percent of all respondents), surrounding area or environment (26.6 percent), and recreation opportunities (21.2 percent).[15] The most frequently mentioned single answer was "friendly people" given by 25.9 percent of the respondents to this question.

---

[13] Another 5.2 percent gave no answer to this question.

[14] Respondents' first two choices were included for analysis. So there were a total of 622 answers to this question, with 313 persons responding.

When asked what they liked least about living in Rock Springs, respondents most frequently gave answers concerning the environment and physical surroundings (64.6 percent of all respondents). Other frequently mentioned groups of complaints were lack of adequate community facilities (27.7 percent of the respondents), lack of recreation opportunities (17.4 percent), the people (17.4 percent), and the high costs of goods and services (9.1 percent). The single answers given most frequently were "wind" (15.5 percent of respondents), "climate" (13.4 percent), "lack of green vegetation and trees" (11 percent), and "depressing and dirty town" (10.7 percent). In total, respondents mentioned 408 things they liked about living in the area, and 525 things they disliked about living in the area.

I. METHODOLOGY AND PROCEDURES: GREEN RIVER

The Household Survey was conducted with 254 households in Green River. There were about 2500 households in Green River, so a 10.2 percent sample of households participated in the survey. Green River was a currently affected community, so two-phase sampling was used there. The first phase consisted of dividing the town into 85 contiguous clusters of 29 households each, and conducting an interview with one household from each cluster. This was done in order to determine in what proportions long time residents, newcomer construction workers, and other newcomers actually existed in Green River. It was found that 54.1 percent of the residents were long time residents, 9.4 percent were newcomer construction workers, and 36.5 percent were other newcomers.

Using these data to revise the estimates of the proportions in which the three groups actually existed in the community, sample quotas for the three groups were established, and the second phase begun. The town was divided into clusters of 15 households each, and an interview was attempted at one household within each cluster. As quotas were filled, potential respondents were screened according to length of residence and occupation in order to interview the appropriate number of respondents for each group. In this way, 254 interviews were completed: 88 with long time resident households, 59 with newcomer construction worker households, and 96 with other newcomer households.[16] Those who had moved to Green River within the past 4 years were considered newcomers. The distinction between "construction worker" and "other" newcomer households was made on the basis of the household head's occupation. A copy of the Household Survey interview form appears in the Appendix.

---

[15] Respondents were encouraged to give more than one answer, so many gave two answers. Therefore, percentages may add to more than 100.0 percent.

The sampling plan and results, field procedures, data handling and analysis, and the Household Survey questionnaire are explained in greater detail in CONSTRUCTION WORKER PROFILE: USER'S GUIDE TO THE DATA. Also included in that document are procedures for obtaining the entire data set.

J. CHARACTERISTICS OF THE POPULATION OF GREEN RIVER, WYOMING

1. Family Size and Marital Status

Average family size for Green River residents was larger than that for the state, for the United States, or for Rock Springs. Average family size for the Green River population was 3.68 persons, while it was 3.62 persons for Rock Springs.[17] Table 31 compares family sizes for Green River residents, Wyoming, and the United States.

As the table demonstrates, all groups in Green River, especially other newcomers, had large family sizes. As was noted in the section on Rock Springs, newcomers who bring their families (and fairly large ones) to communities affected by large scale energy development projects will make substantial demands on the entire range of community services.

---

[16] The number of interviews for each group will not add to 254 because some newcomers listed occupations which were not readily classifiable as construction or other occupations. Data from those interviews were therefore not included for analysis of the three subpopulations.

[17] Average family sizes for these two communities are weighted averages, based on the actual proportions of the total population formed by the three subpopulations, determined in Phase I of the sampling procedure. Averages shown for total respondents would be misleading, since newcomers were overrepresented in the total sample in order to have enough responses for each group upon which to base analysis.

TABLE 31

FAMILY SIZE COMPARISONS
GREEN RIVER, WYOMING, AND THE UNITED STATES[a]

Place		Average Number of Persons per Family
Green River:	Total Population	3.68[b]
	Long Time Residents	3.63
	Newcomer Construction Workers	3.49
	Other Newcomers	3.81
Wyoming		3.55[c]
United States		3.57[c]

---

[a] For the purposes of this report, a family is composed of a head of household and other household members related to the head by blood, marriage, or adoption. Spouses and children were the only relatives of the head included in these data. All families included at least two persons.

[b] The figure for the total population is a weighted average, based on the actual proportions of the population formed by the three subpopulations, as determined in Phase I of the sampling procedure.

[c] Source: U.S. Bureau of the Census, *1970 Census of Population: Characteristics of the Population, United States Summary* (Washington, D.C.: U.S. Government Printing Office, 1973), p. 1-1628.

About 67 percent of all households interviewed in Green River included children of the head. Using the family characteristics data obtained in the Household Survey, the numbers of children in each age group (for long time residents, newcomer construction workers, and other newcomers) shown in Table 32, could be expected in every 100 families in Green River.

TABLE 32

AVERAGE NUMBER OF CHILDREN IN VARIOUS AGE CATEGORIES (FOR EACH 100 FAMILIES) GREEN RIVER, WYOMING

Age Category	Average Number of Children			
	Long Time Residents	Newcomer Construction Workers	Other Newcomers	Total[a] Population
Under 5	44	57	69	54
5-11	57	41	68	60
12-14	19	18	29	23
15-17	28	14	11	20
18-19	5	8	1	4
20-24	9	4	1	6
25 or over	4	2	0	2
TOTAL	166	144	179	169

---

[a] Figures for the total population are weighted using the proportions of the total population actually formed by the three subpopulations determined in Phase I of the sampling procedure.

Table 32 shows that there would be an average of 169 children included in every 100 families in Green River, or 1.7 children per family for the total population. For long time residents in Green River, 166 children per 100 families (1.7 children per family) would be expected; for newcomer construction workers, 144 children in each 100 families (1.4 children per family) would be expected; and for other newcomers, 179 children per 100 families would be expected (1.8 children per family).

None of the groups reported many one person households: 10.2 percent of the newcomer construction worker households, 5.2 percent for other newcomers, and 6.8 percent for long time residents. Less than 7 percent of Green River's households were one person households, compared with 13.4 percent for Rock Springs' population. This finding supports the supposition that Green River acts as a suburb to Rock Springs. More families live in Green River, and it seemed quieter and more conservative than Rock Springs to the Household Survey interviewers.

There were fewer one person households in all three population groups in Green River than is average for the U.S. population, in chich 19 percent of all households are one person households.[18] Table 33 shows the distribution of households in Green River and the United States by size of household.

TABLE 33

HOUSEHOLD DISTRIBUTION BY SIZE OF HOUSEHOLD
GREEN RIVER AND THE UNITED STATES

Size of Household	Percentage of Households				
	Green River				United States[c]
	Long Time Residents	Newcomer Construction Workers	Other Newcomers	Total[b] Population	
One person	6.8	10.2	5.2	6.5	19.1
Two persons	28.4	27.1	19.8	25.1	30.8
Three persons	17.0	18.6	30.2	22.0	17.1
Four persons	22.7	25.4	21.9	22.7	15.6
Five persons	17.0	8.5	11.5	14.2	9.3
Six persons	4.5	6.8	6.3	5.4	4.4
Seven or more persons	3.4	3.4	5.2	4.1	3.8
TOTAL[a]	100.0	100.0	100.0	100.0	100.0

[a] Totals may not add to 100.0 percent because of rounding.

[b] Figures for the total population are weighted using the proportions of the total population actually formed by the three subpopulations determined in Phase I of the sampling procedure.

[c] Source: U.S. Bureau of the Census, Consumer Income: Household Money Income in 1973 and Selected Social and Economic Characteristics of Households (Washington, D.C.: U.S. Government Printing Office, 1974), p. 14.

---

[18] U.S. Bureau of the Census, Consumer Income: Household Money Income in 1973 and Selected Social and Economic Characteristics of Households, (Washington, D.C.: U.S. Government Printing Office, 1974), p. 8.

Green River residents, like Rock Springs residents, tended to live in slightly larger households than average for the United States.

Most household heads were married. A larger proportion of household heads in Green River than in Rock Springs were married. Table 34 compares marital status characteristics for long time residents, newcomer construction workers, and other newcomers in Green River.

TABLE 34

MARITAL STATUS OF HOUSEHOLD HEADS
GREEN RIVER, WYOMING

Marital Status	Percentage of Household Heads		
	Long Time Residents	Newcomer Construction Workers	Other Newcomers
Now Married	85.2	81.4	86.5
Widowed or Divorced	11.4	3.4	2.1
Never Married	3.4	15.3	11.5
TOTAL[a]	100.0	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

2. Age

Median ages for the population groups in Green River were quite young, younger than for Rock Springs (with the exception of the newcomer construction worker group), or the United States. The newcomers to Green River were younger than the long time residents, with the other newcomers constituting the youngest group. This is hardly surprising in view of the fact that this group includes the largest households in the town. In other words, these households included more young children than any other group of households and so had a lower median age. Table 35 compares median ages of the Green River population and the populations of the state and the United States.

TABLE 35

MEDIAN AGE COMPARISONS
GREEN RIVER, WYOMING, AND THE UNITED STATES

Group		Median Age
Green River:	Long Time Residents	23.11
	Newcomer Construction Workers	22.81
	Other Newcomers	20.25
Wyoming		27.10[a]
United States		28.10[a]

---

[a] Source: U.S. Bureau of the Census, 1970 Census of Population: Characteristics of the Population, United States Summary (Washington, D.C.: U.S. Government Printing Office, 1973), p. 1-310.

The relative youth of the newcomer population is further illustrated in Table 36 where age distribution of household heads by group is presented.

The age distribution of newcomer household heads in Green River is significant in that 67 percent of these heads were of the ages associated with child-bearing and child-rearing. These people are likely to have or to be beginning large families and to make significant demands on community facilities, especially schools, recreation facilities, and housing.

TABLE 36

AGE DISTRIBUTION OF HOUSEHOLD HEADS GREEN RIVER AND THE UNITED STATES

Age Categories	Percentage of Household Heads				
	Green River				United States[c]
	Long Time Residents	Newcomer Construction Workers	Other Newcomers	Total Population[b]	
14-24	12.6	20.7	23.1	17.2	8.4
25-34	27.6	43.1	49.4	37.0	20.5
35-44	16.0	12.1	16.9	16.0	16.8
45-64	29.8	22.3	10.6	22.1	34.5
65 or over	13.7	1.7	---	7.6	19.9
TOTAL[a]	100.0	100.0	100.0	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

[b] Figures for the total population are weighted using the proportions of the total population actually formed by the three subpopulations determined in Phase I of the sampling procedure.

[c] Source: U.S. Bureau of the Census, Consumer Income: Household Money Income in 1973 and Selected Social and Economic Characteristics of Households (Washington, D.C.: U.S. Government Printing Office, 1974), p. 2.

Table 37 compares age distribution of all members of the three population groups in Green River with that of the U.S. population. Again, the youth of the newcomer population is demonstrated.

The newcomers in Green River had somewhat different characteristics than did the ones in Rock Springs. In Green River, the households were larger, the newcomers were generally younger, and there were few single people. At the time of the Household Survey, interviewers heard from respondents that it was difficult to move into Green River. Housing developments were often built by the mining companies, and houses reserved for the employees of those companies. So, others who wanted a quieter, more suburban setting, usually families with children, had to make a great effort to buy or rent a house in Green River.

TABLE 37

AGE DISTRIBUTION
GREEN RIVER AND THE UNITED STATES

Age Categories	Percentage of Residents				
	Green River				United States[c]
	Long Time Residents	Newcomer Construction Workers	Other Newcomers	Total[b] Population	
Under 15	33.0	30.3	42.1	36.1	28.4
15-19	10.4	8.0	5.6	8.4	9.4
20-24	9.1	23.9	14.8	12.6	8.1
25-34	15.5	18.1	24.6	19.1	12.2
35044	10.1	6.9	8.6	9.2	11.4
45-54	9.8	8.5	2.7	7.1	11.5
55-64	7.1	3.7	1.5	4.7	9.1
65 and over	5.1	0.5	---	2.8	9.9
TOTAL[a]	100.0	100.0	100.0	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

[b] Figures for the total population are weighted using the proportions of the total population actually formed by the three subpopulations determined in Phase I of the sampling procedure.

[c] Source: U.S. Bureau of the Census, 1970 Census of Population: Characteristics of the Population, United States Summary (Washington, D.C.: U.S. Government Printing Office, 1973), p. 1-263.

3. Education

The Green River population had higher educational attainments than did the populations of Wyoming and the United States, but had significantly lower educational attainments than did the Rock Springs population. In

Green River, the newcomer construction workers' educational attainments and those of other newcomers were similar, while in Rock Springs, there was a great difference between these two groups in terms of their education. The other newcomers group in Green River had the highest educational attainments of any group, as in Rock Springs, but the difference was not so striking. See Table 38 for educational attainment comparisons between the Green River and U.S. populations.

TABLE 38

EDUCATIONAL ATTAINMENTS GREEN RIVER AND THE UNITED STATES

Highest Educational Level Completed	Percentage of Residents			
	Green River[b]			United States[c]
	Long Time Residents	Newcomer Construction Workers	Other Newcomers	
Less than High School Graduation	30.1	20.4	12.8	47.7
High School Graduate	38.2	33.3	41.7	31.1
Some College	9.2	25.0	25.6	10.6
College Graduate	11.0	9.3	12.2	6.1
Some Graduate School	0.6	1.9	2.2	4.6
Advanced Degree	1.7	1.9	1.1	
Vo-Tech School	9.2	8.3	4.4	---
TOTAL[a]	100.0	100.0	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

[b] Educational attainments for household heads and spouses are included for Green River. Data for the United States were reported for persons 25 and over. Because of the method of data analysis for the Household Survey, it was not possible to present data for persons 25 and over only. Some household heads and spouses were under 25, but only four listed his/her occupation as "student", and so the rest were assumed to have completed their educations. As a result of the procedure of including only household heads and spouses in this analysis, some household members over 25 (11 persons) were left out of the Green River data presented here.

[c] Source: U.S. Bureau of the Census, 1970 Census of Population: Characteristics of the Population, United States Summary (Washington, D.C.: U.S. Government Printing Office, 1973), pp. 1-493, 1-494.

When educational attainment data for household heads are scrutinized, the same phenomenon is observable: while educational attainments of Green River's household heads were higher than for household heads in the United States as a whole, they were lower than for household heads in Rock Springs. Table 39 compares Green River and U.S. data.

TABLE 39

EDUCATIONAL ATTAINMENTS OF HOUSEHOLD HEADS GREEN RIVER AND THE UNITED STATES

Highest Educational Level Completed	Percentage of Household Heads			
	Green River			United States[b]
	Long Time Residents	Newcomer Construction Workers	Other Newcomers	
Less than High School Graduation	31.8	16.9	9.4	39.1
High School Graduate	38.6	35.6	39.6	32.7
Some College	12.5	27.1	26.0	13.1
College Graduate	10.2	5.1	14.6	15.1
Some Graduate School	1.1	3.4	3.1	
Advanced Degree	2.3	1.7	2.1	
Vo-Tech School	3.4	10.2	5.2	---
TOTALS[a]	100.0	100.0	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

[b] Source: U.S. Bureau of the Census, Consumer Income: Household Money Income in 1973 and Selected Social and Economic Characteristics of Households (Washington, D.C.: U.S. Government Printing Office, 1974), p. 7.

4. Occupation and Industry

Only five (2 percent) of the respondents to the Household Survey in Green River were unemployed, and 15 (5.9 percent) were retired. The industry in which the largest number of respondents worked was the mining industry. In fact, the mining industry was most frequently listed by the newcomer construction workers in Green River--44 percent of them worked on the construction of mines, and, as expected, a majority (69.8 percent) of other newcomers worked in the mining industry. Green River, which used to be a railroad and coal mining town is now primarily a trona mining town. The energy development portion of the boom did not affect Green River nearly as much as it did Rock Springs, but the mining boom affected Green River to a much greater degree than it did Rock Springs. (Only 8 percent of Rock Springs' employed respondents listed mining as the industry in which they worked.) And the mining boom shows little sign of ending. While it may be true that Rock Springs' population growth is leveling off, that phenomenon was not observable in Green River. Table 40 compares occupations of newcomers and long time residents in Green River, and Table 41 shows the industries in which they worked.

There was a preponderance of craftsmen, foremen, and laborers among Green River's labor force. This was true for both long time residents and newcomers. This is quite different from the occupation distribution for Rock Springs' labor force. In Rock Springs, while newcomer construction workers were most frequently craftsmen or foremen, the long time residents were most frequently in managerial positions, and the other newcomers were most frequently in professional, technical, or managerial positions. This helps explain the differences in educational attainments for the populations of the two towns. Persons in professional, technical, or managerial fields usually have more formal education than persons who are craftsmen, foremen, or laborers. Green River has a less diversified economy than does Rock Springs, with mining being its largest basic industry. The mining industry employs large numbers of craftsmen, operatives, and laborers, with fewer professionals and managers than many other industries.

Among construction workers interviewed in Green River, there was little job switching. Most respondents who said they presently held construction jobs (60.2 percent) indicated the same occupation for their previous jobs. There was some job switching within the construction industry, e.g., construction laborers becoming construction craftsmen or foremen (about 8 percent). The non-construction occupation group listed most frequently as a previous occupation by construction workers was "student" (6 percent).

When asked why they changed jobs, most household heads (86.6 percent) gave job-related answers, such as "previous job terminated" (23.3 percent), "new job more satisfying" (18.5 percent), or "new job pays better" (18.5 percent). Among the nonjob-related answers, most frequent was,"desire to live in the area" (3.4 percent).

TABLE 40

OCCUPATIONS OF HOUSEHOLD HEADS GREEN RIVER, WYOMING

Occupation Category	Percentage of Household Heads	
	Long Time Residents	Newcomers[b]
Construction Employment:	15.9	20.5
Professional, Technical, Kindred	1.1	1.0
Supervisory	---	1.4
Craftsmen and Kindred	11.4	12.5
Operatives, except Transport	2.3	0.7
Transport Equipment Operatives	---	0.7
Laborers	1.1	4.2
Nonconstruction Employment:	84.0	79.6
Professional, Technical, Kindred	11.4	11.6
Managerial	14.8	7.5
Sales	---	0.8
Craftsmen, Foremen, Kindred	5.7	19.9
Clerical and Kindred	6.8	1.7
Operatives, except Transport	10.2	11.6
Transport Equipment Operatives	2.3	0.8
Laborers, except Farm	6.8	24.0
Service Workers, except Private Household	4.5	1.7
Private Household Workers	1.1	---
Retired	17.0	---
Unemployed	3.4	---
TOTAL[a]	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

[b] Figures for newcomers are weighted according to the actual proportions of that group formed by "newcomer construction workers" and "other newcomers", determined in Phase I of the sampling procedure.

TABLE 41

INDUSTRY OF EMPLOYED HOUSEHOLD HEADS GREEN RIVER, WYOMING[a]

Industry	Percentage of Employed Household Heads	
	Long Time Residents	Newcomers[c]
Agriculture, Forestry, Fisheries	4.3	---
Mining	38.6	64.5
Construction:		
Jim Bridger Plant	1.4	5.0
Other energy-related	2.9	2.8
Nonenergy-related	10.0	4.5
Manufacturing	10.0	10.7
Transportation, Communications, Utilities	15.7	5.8
Retail Trade	4.3	0.8
Finance, Insurance, Real Estate	---	0.8
Personal Services	5.7	---
Health and Recreation	2.9	0.8
Professional and Educational Services	1.4	3.3
Public Administration	2.9	0.8
TOTAL[b]	100.0	100.0

---

[a] Retired and unemployed persons and students are not included.

[b] Totals may not add to 100.0 percent because of rounding.

[c] Figures for newcomers are weighted according to the actual proportions of that group formed by "newcomer construction workers" and "other newcomers," determined in Phase I of the sampling procedure.

Construction workers gave job-related reasons for changing jobs more frequently than other groups. Ninety-three percent gave job-related answers, with "previous job terminated" being most frequently mentioned (38.6 percent of the respondents), and "job with better pay (21.1 percent) second most frequent.

In Green River, as in Rock Springs, more spouses of long time residents than spouses of members of either newcomer group had jobs. More than 30 percent of the long time resident spouses had jobs, while 13.3 percent of other newcomer spouses had jobs, and only 8.2 percent of newcomer construction worker spouses had jobs. None of the groups indicated much labor force participation by other household members, except for newcomer construction workers. Over 13 percent of these households included other household members who had jobs outside the home, but only half of these were related to the head. The other half are assumed to be roommates or lodgers. In no study community was high labor force participation by spouses of newcomer construction workers observed. Since this group was the most transient, one hypothesis might be that spouses are discouraged from having jobs because this might inhibit the transient life style which many of these households have established. Tables 42 and 43 show the occupations and industries in which these workers were employed.

TABLE 42

OCCUPATIONS OF SPOUSES
GREEN RIVER, WYOMING

Occupation	Percentage of Working Spouses	
	Long Time Residents	Newcomers
Construction Employment:		
Supervisory	---	3.8
Craftsmen, Foremen	4.3	7.7
Laborers	---	7.7
Nonconstruction Employment:		
Professional, Technical	17.4	23.1
Managerial	4.3	---
Clerical	17.4	23.1
Operatives, except Transport	4.3	3.8
Transport Equipment Operatives	4.3	---
Laborers, except Farm	8.7	11.5
Service Workers	39.1	19.2
TOTAL[a]	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

TABLE 43

INDUSTRY OF EMPLOYED SPOUSES
GREEN RIVER, WYOMING

Industry	Percentage of Working Spouses	
	Long Time Residents	Newcomers
Mining	4.3	34.6
Construction:		
Jim Bridger Plant	4.3	---
Other energy-related	---	7.7
Nonenergy-related	---	3.8
Manufacturing	---	3.8
Transportation, Communications, Utilities	17.4	3.8
Retail Trade	13.0	11.5
Finance, Insurance, Real Estate	4.3	---
Personal Services	17.4	---
Health and Recreation	21.7	15.4
Professional, Educational Services	17.4	19.2
TOTAL[a]	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

5. Income

Green River residents interviewed for the Household Survey had, on the average, higher incomes than the U.S. population, but they were significantly lower (with the single exception of long time resident incomes) than the incomes in Rock Springs. Median incomes for all groups in Green River are compared with the U.S. median in Table 44. Further income comparisons among groups are shown for Green River respondents and the United States in Table 45.

The same situation existed in Green River as in Rock Springs with respect to income distribution, but it was not as extreme as in Rock Springs. The median income for newcomer construction workers in Green River was only 25 percent higher than that for long time residents, while it was 35 percent higher in Rock Springs. Yet 17 percent of the long time residents in Green River had annual household incomes below $10,000, and with costs of goods and services in the area being high, these incomes may be inadequate.

TABLE 44

MEDIAN ANNUAL HOUSEHOLD INCOME GREEN RIVER AND THE UNITED STATES

Group		Median Income
Green River:	Long Time Residents	$15,636
	Newcomer Construction Workers	19,500
	Other Newcomers	15,684
United States		10,512[a]

---

[a] Source: U.S. Bureau of the Census, Consumer Income: Household Money Income in 1973 and Selected Social and Economic Characteristics of Households (Washington, D.C.: U.S. Government Printing Office, 1974), p. 1.

Respondents to the Household Survey in Green River were asked about their household expenditures, how much they spent on various goods and services, and how much of their spending was done locally (within Green River). The ratio of total household expenditures and savings to gross income varied only slightly among the three groups: for long time residents, the ratio was .72; for newcomer construction workers, it was .74; and for other newcomers, it was .73. The income unaccounted for by expenditures is composed of personal income taxes, social security taxes, other payroll deductions not included in expenditures, and any underestimation of expenditures by the respondent. The ratio of local to total expenditures (exclusive of savings) for the three groups was: .64 for long time residents; .51 for newcomer construction workers; and .57 for other newcomers. In other words, from one-half to two-thirds of Green River's residents' household expenditures were made locally. These are slightly lower ratios than were found for Rock Springs' residents, but this is not surprising since Rock Springs is the trade center for the area. It

TABLE 45

ANNUAL HOUSEHOLD INCOME
GREEN RIVER AND THE UNITED STATES

Income Category	Percentage of Households				
	Green River				United States[d]
	Long Time Residents	Newcomer Construction Workers	Other Newcomers	Total[c] Population	
Less than $4,000	---	---	---	---	17.5
$4,000-$5,999	8.0	---	1.0	4.7	10.4
$6,000-$7,999	4.5	---	---	2.4	9.9
$8,000-$9,999	4.5	1.7	4.2	4.1	9.7
$10,000-$11,999	9.1	3.4	10.4	9.0	9.7
$12,000-$14,999[a]	12.5	11.9	15.6	13.6	12.9
$15,000-$24,999[a]	45.5	57.7	56.3	50.6	22.1
$25,000 and over[a]	13.5	25.5	8.2	12.7	7.8
No Response	2.3	---	4.2	2.8	---
TOTAL[b]	100.0	100.0	100.0	100.0	100.0

---

[a] Income data for the Household Survey were collected for $2,000 intervals. These categories do not match published U.S. Census income categories exactly. The $12,000-$14,999 category is a census category which corresponds to the $12,000-$13,999 category in the Household Survey. The $15,000-$24,999 category is a census category which corresponds to five Household Survey categories including incomes between $14,000 and $23,999. The $25,000 and over category is a census category which corresponds to nine Household Survey categories including incomes of $24,000 and over.

[b] Totals may not add to 100.0 percent because of rounding.

[c] Figures for the total population are weighted using the proportions of the total population actually formed by the three subpopulations determined in Phase I of the sampling procedure.

[d] Source: U.S. Bureau of the Census, Consumer Income: Household Money Income in 1973 and Selected Social and Economic Characteristics of Households (Washington, D.C.: U.S. Government Printing Office,1974), p. 14.

provides a much broader range of goods and services than does Green River, and undoubtedly, Green River residents did some of their spending in Rock Springs. Table 46 shows average monthly expenditures by category for Green River residents.

K. TRANSIENCY OF NEWCOMERS

Over 17 percent of the newcomers to Green River came from other places in Wyoming, and another 35 percent came from states contiguous to Wyoming, with Utah being mentioned most frequently (18 percent of all newcomers) as a previous residence. As in Rock Springs, former residents of all parts of the United States were represented in the survey sample in Green River, but a substantial proportion (59.7 percent) came from the Mountain States. Newcomer construction workers lived at their previous places of residence for less than 6 years, while 62 percent of the other newcomers had done the same. As in Rock Springs, a significant percentage of newcomers (15.8 percent of newcomer construction workers and 27.2 percent of other newcomers) had lived at their previous place of residence for 15 years or longer.

When asked their reasons for moving to the Green River area, most newcomers gave job-related reasons, with "job opportunities" given most frequently (37.5 percent of responses), and "better paying job" (18.1 percent) given second most frequently.

All respondents were asked what plans they had for staying in the area. Newcomers indicated plans for settling in the area much less frequently than did long time residents, although a substantial proportion indicated they would leave at retirement. Newcomer construction workers said they would stay as long as work was available much more frequently than any other group. The pattern of responses to this question by Green River residents was much the same as the pattern for Rock Springs residents, with the single exception that other newcomers in Green River indicated they would stay until transferred much less frequently than did the other newcomers in Rock Springs. Table 47 compares responses to this question by long time residents, newcomer construction workers, and other newcomers.

Quite a large proportion of other newcomers (39.6 percent) indicated plans to settle in the Green River area. This is a larger proportion of that group than indicated plans to settle in the Rock Springs area. It may be that new Green River residents were more satisfied with living in

TABLE 46

AVERAGE HOUSEHOLD EXPENDITURES BY CATEGORY GREEN RIVER RESIDENTS

Expenditure Category	Long Time Residents		Newcomer Construction Workers		Other Newcomers	
	Average Monthly Expenditures	Average Local Monthly Expenditures	Average Monthly Expenditures	Average Local Monthly Expenditures	Average Monthly Expenditures	Average Local Monthly Expenditures
Housing	$ 117.88	$ 117.88	$ 184.85	$ 184.85	$ 186.51	$ 186.51
Utilities	47.77	——[b]	43.38	——[b]	38.16	——[b]
Automobile Payments and Service	115.64	79.69	176.08	93.74	143.02	69.48
Insurance and Medical	62.31	12.38	55.47	9.19	59.24	9.82
Groceries	193.45	178.70	214.42	172.89	197.34	160.08
Amusements, Travel and Other	278.14	140.12	368.12	115.59	330.66	99.80
TOTAL[a]	836.89	536.16	1132.81	585.32	950.96	543.44

---

[a] Adding the means for the individual expenditure categories will not result in the totals shown. The totals shown are means calculated from ungrouped data and are therefore more accurate then means derived by adding the individual means.

[b] Utilities expenditures were assumed to be nonlocal.

the area than Rock Springs residents. This supposition is corroborated in the section on satisfaction with community services.

TABLE 47

PLANS FOR STAYING IN THE AREA
GREEN RIVER RESIDENTS

Plans	Percentage of Residents		
	Long Time Residents	Newcomer Construction Workers	Other Newcomers
Settle down here	78.4	16.9	39.6
Leave immediately	---	3.4	4.2
Stay as long as work is available	4.5	35.6	6.3
Uncertain	3.4	5.1	10.4
Leave at retirement	4.5	25.4	27.1
Stay until transferred	6.8	8.5	3.1
Other	2.3	5.1	9.4
TOTAL[a]	100.0	100.0	100.0

---

[a] Figures may not add to 100.0 percent because of rounding.

Although it appears that newcomers to Green River were a fairly transient group, most, as in Rock Springs, were transient within a limited geographical area. And, in Green River, newcomers tended to plan to settle down in the area or stay until retirement more frequently than Rock Springs' newcomers. Newcomer construction workers were, as expected, more transient than any other group, 42 percent having lived at their previous place of residence for less than 2 years, and 39 percent planning to either leave immediately or to stay in the area only as long as work was available.

L. COMMUNITY INTEGRATION

Respondents to the survey were asked to rank the three places where they met most of their friends in terms of their importance as sources of social contacts. All three groups of respondents mentioned "work" more frequently than any other source of social contact. It can be seen from looking at the top ranked sources of friends for each group that newcomer construction workers relied much more heavily than any other group on work as a source of friends: 44.1 percent of them ranked "work" first, while 34 percent of the other newcomers did so, and 37.2 percent of the long time residents did so. Long time residents ranked "church", and "school" first more frequently than did the other groups, and newcomer construction workers ranked "neighborhood" and, interestingly, "clubs" first more frequently than did the other groups.

When the top three sources of social contact for each group are combined, a slightly different pattern emerges. Newcomer construction workers exhibited similarities to long time residents in their degree of reliance on clubs, recreation activities, and relatives. In fact, there was not really much difference among any of the three groups, unlike the situation in Rock Springs where frequently there were significant differences between long time residents and newcomers. Table 38 illustrates these findings.

TABLE 48

SOURCES OF SOCIAL CONTACT GREEN RIVER RESIDENTS[a]

	Percentage of Residents		
Source	Long Time Residents	Newcomer Construction Workers	Other Newcomers
Work	72.1	72.9	73.4
Church	31.4	25.4	24.5
Bars	8.1	10.2	10.6
Clubs	22.1	20.3	5.3
Recreation	9.3	8.5	3.2
Relatives	8.1	8.5	16.0
Neighborhood	41.9	40.7	38.3
School	17.4	3.4	3.2
Other	19.8	23.7	31.9

---

[a] This table combines responses for the three most important sources of social contact, so percentages add to more than 100.0 percent.

Newcomers in Green River appeared to rely on community-oriented sources of social contact (church, clubs, neighborhoods) almost as fequently as did the long time residents. This, coupled with long time residents being less critical of the projects' effects than Rock Springs' long time residents (discussed later in this report) and the tendency of Green River's newcomers to choose negative words describing the town less frequently and positive words more frequently than Rock Springs' newcomers (see section on Attitudes of Newcomers later in this report), suggests that newcomers in Green River were more integrated into the community and felt less alienated than did newcomers to Rock Springs.

M. SATISFACTION WITH SERVICES

Respondents in Green River were asked how satisfied they were with community services, including law enforcement, fire protection, utilities, garbage collection, streets and roads, medical services, entertainment, shopping facilities, schools, and housing. The data on respondents' satisfaction with services can be compared with the capital facilities data collected at the time of the Household Survey in order to determine how respondents' perceptions of the adequacy of public facilities accord with an objective evaluation of services and facilities. This provides a measure of the respondents' satifaction with living in the community. A comparison of responses by newcomers and long time residents in Green River to the questions about community services reveals the usual pattern. Newcomers, especially other newcomers,were more frequently dissatisfied with services than were long time residents. The same situation was found for Rock Springs' respondents. Newcomer construction workers answered "uncertain" more frequently than did members of the other groups. They rarely showed a higher level of satisfaction with any particular service than the other groups, but they also rarely showed a higher level of dissatisfaction.

Table 49 contrasts the levels of satisfaction and dissatisfaction with services indicated by long time residents, newcomer construction workers, and other newcomers in Green River.

TABLE 49

SATISFACTION/DISSATISFACTION WITH COMMUNITY FACILITIES GREEN RIVER RESIDENTS[a]

Service		Percentage of Residents		
		Long Time Residents	Newcomer Construction Workers	Other Newcomers
Law Enforcement:	Satisfied	53.4	50.9	54.2
	Dissatisfied (or No Service)[b]	30.6	30.5	21.9
Fire Protection:	Satisfied	90.9	51.7	51.1
	Dissatisfied (or No Service)	3.4	6.9	9.4
Water:	Satisfied	90.9	86.5	84.3
	Dissatisfied (or No Service)	5.6	8.5	12.7
Sewer:	Satisfied	73.9	62.7	84.4
	Dissatisfied (or No Service)	19.2	32.3	15.7
Garbage Collection:	Satisfied	69.3	62.7	73.0
	Dissatisfied (or No Service)	26.1	37.3	21.9
Streets and Roads:	Satisfied	38.6	27.1	11.5
	Dissatisfied (or No Service)	53.4	66.1	86.5
Medical Services:	Satisfied	11.3	16.9	10.4
	Dissatisfied (or No Service)	85.1	72.9	79.2
Entertainment:	Satisfied	14.8	16.9	8.3
	Dissatisfied (or No Service)	78.4	74.6	86.4
Shopping Facilities:	Satisfied	56.3	42.4	37.5
	Dissatisfied (or No Service)	35.6	54.3	58.3
Schools:	Satisfied	73.9	40.0	50.0
	Dissatisfied (or No Service)	11.4	11.9	10.4
Housing Availability:	Satisfied	31.8	18.6	22.9
	Dissatisfied (or No Service)	68.2	79.7	74.9
Housing Quality:	Satisfied	34.1	25.4	34.8
	Dissatisfied (or No Service	43.1	59.3	55.8

---

[a] Totals of "satisfied" and "dissatisfied" categories will not usually add to 100.0 percent because some respondents answered "uncertain" and those percentages are not included in this table.

[b] The category "No Service" was included with "Dissatisfied" because frequently the respondent indicated there was no service for a category when in fact that service was provided. It was felt that this was a measure of dissatisfaction in those cases because the service would have to be fairly poor for the respondent not to know it was being provided.

According to capital facilities information collected in Green River, presented in the Appendix, there were inadequacies in the following services: the sewer system, the police department, medical personnel, streets and roads. There were also observed shortages in shopping facilities and entertainment opportunities. The only facilities for which there are objective measures which appeared to be adequate were water supply and treatment, solid waste disposal, fire protection, and just this year (1975), with the opening of new schools, the school system. The inadequacies are hardly surprising in view of the fact that Green River's population has doubled since 1970. Several of the services or facilities which, by most standards would be considered inadequate, i.e., police department and sewer system, were felt to be adequate by a majority of respondents. Schools, too, were felt to be adequate by most respondents, when, at the time of the Household Survey, crowded conditions existed in most schools. The services for which dissatisfaction was indicated by a majority of respondents were streets and roads, medical facilities, entertainment and shopping facilities, and housing availability and quality. The dissatisfaction with these services is entirely appropriate, since they were, in fact, even less adequate than the same services in Rock Springs.

When the results of the Household Survey in Green River are compared with those of the survey in Rock Springs, one discovers that respondents in Green River indicated, on the whole, a higher level of satisfaction with services than respondents in Rock Springs. The only services with which Green River's respondents were more dissatisfied than were Rock Springs' residents were those services which were, in fact, less adequate in Green River: medical facilities, entertainment opportunities, and shopping facilities. It is easy to understand the relative satisfaction with services shown by Green River's respondents, since it has a more appealing environment, has had less extreme growth, and provides a suburban setting, which many of its residents find very satisfying. Interviewers heard repeated assurances from Green River residents that they preferred living in Green River to living in Rock Springs, that it was a better environment for families.

Answers to the questions on satisfaction with services were also analyzed according to education of the household head. Households where the head had less than a college degree tended to be more satisfied with services than households whose heads had a college degree or more education. Fifty-six percent of the responses made by these households about community services were "very satisfied" or "satisfied", and 43.7 percent were "dissatisfied" or "very dissatisfied".[19] Those households in which the head had a college degree or more education tended to be less satisfied with services: 51.1 percent of the responses from these households indicated satisfaction, and 48.9 percent indicated dissatisfaction. Similarly, as household income increased, so did dissatisfaction with services. Table 50 illustrates the differences in satisfaction with services among three income groups.

TABLE 50

SATISFACTION/DISSATISFACTION WITH SERVICES ACCORDING TO HOUSEHOLD INCOME GREEN RIVER RESIDENTS

	Percentage of Income Group		
Annual Household Income	"Very Satisfied" or "Satisified"	"Dissatisfied" "Very Dissatisfied" or "No Service"	Total
Less than $12,000	59.7	40.3	100.0
$12,000 - $19,999	54.4	45.6	100.0
$20,000 or more	51.9	48.1	100.0

N. HOUSING PREFERENCES

Fewer than half of the respondents (49.6 percent) to the Household Survey in Green River owned or were buying their homes. This is the only study community besides Colstrip, Montana (which is a company town and in which most of the housing is owned by Western Energy) for which such a low level of home ownership was observed. In the other study communities, at least 60 percent of the respondents were home owners. A majority of long time residents (74 percent) were home owners; slightly fewer than 50 percent of the newcomer construction workers were home onwers; and only 25 percent of the other newcomers were homeowners. It is likely that many of the other newcomers, most of whom worked for the trona mining companies, were living in company-owned housing. It has been noted earlier in this report that one reason for the small proportion of construction workers living in Green River was that the mining companies built housing and held it for their employees, thereby making it difficult for anyone not working for those companies to move into Green River. Table 51 shows the types of housing in which Green River residents lived.

---

[19] "Uncertain" responses were not included for these analyses. The intention was to compare satisfaction and dissatisfaction among respondents according to education and income characteristics to determine if these characteristics could have a bearing on their answers.

TABLE 51

TYPE OF DWELLING LIVED IN GREEN RIVER RESIDENTS

	Percentage of Households		
Dwelling Type	Long Time Residents	Newcomer Construction Workers	Other Newcomers
Single Family:			
2 bedrooms	19.5	10.2	5.3
3 bedrooms	28.7	5.1	15.8
4 bedrooms	13.8	---	5.3
5 bedrooms	1.1	---	---
other	5.7	3.4	---
Duplex, townhouse, condominium	2.3	---	14.7
Apartment	5.7	3.4	15.8
Mobile Home	23.0	76.3	41.1
Other	---	1.7	2.1
TOTAL[a]	100.0	100.0	100.0

---

[a] Totals may not add to 100.0 percent because of rounding.

It is apparent from the table that newcomers and long time residents were quite different in terms of the type of housing in which they lived. This was also the case in Rock Springs. As in Rock Springs, newcomer construction workers lived in mobile homes more frequently than did members of any other group. This phenomenon is probably partially explained by the fact that the mining companies provided housing for many of their employees (mostly other newcomers).

Newcomer construction workers were the most dissatisfied with their present dwellings--47.5 percent indicated that they would prefer living in another type of housing; 44.8 percent of the other newcomers were dissatisfied; and only 26.1 percent of the long time residents preferred a different type of housing.

Of all the mobile home dwellers, 48.6 percent said they preferred a different housing type; of the apartment dwellers, 40.9 percent preferred another type of housing; and 18 percent of those who lived in single family homes said a different type of housing would be preferable. When asked what type of housing they preferred, 99 percent of all dissatisfied respondents said they would like to live in "other single family" housing.

When asked why they were not living in the preferred type of housing, dissatisfied respondents said that what they wanted was, "too expensive" 45.8 percent of the time, and that it was, "unavailable" 26.7 percent of the time. Other reasons given were "new to community", "temporary job", "in process of moving", and "company housing".

O. ATTITUDES OF LONG TIME RESIDENTS ABOUT EFFECTS OF PROJECTS

Long time residents in Green River were asked a few questions about how they felt about the effects which the construction projects in the area were having on the community and its residents. When asked whether the effects of the construction were the same, better or worse than they expected, only 6 percent of the respondents answered "better", 39.8 percent said the effects were "worse", and 54.2 percent answered "the same". There was a tendency for persons who had lived in Green River for 10 years or longer to answer "worse" more frequently than other respondents. Nearly 51 percent of these respondents thought the effects were worse, while only 33 percent of the other respondents thought so. There were no significant differences in responses to this question according to the respondents' education, income, or occupation. The reasons given most frequently for thinking the effects were worse than anticipated were, "inadequate community facilities" (63.6 percent of the respondents thinking project effects were worse than expected), and "increased population" (33.3 percent).

When asked whether they were glad or unhappy that the projects were in the area at all, most (55.7 percent) of the respondents said they were glad. There were no significant differences in responses to this question according to respondents' education or income. The reasons most frequently given for being glad the projects came to Green River were "job opportunities" (34.7 percent of the glad respondents), "improved capital facilities" (28.5 percent) and "financial benefits" (22.4 percent).

Thirty-nine percent of the respondents to this question were unhappy that the projects came to Green River.[20] Reasons given most frequently for being unhappy included, "increased population", "inadequate community facilities", and, "caused town problems", all given by 26.4 percent of the unhappy respondents.[21]

Apparently many of Green River's long time residents felt willing to put up with the discomforts of the sudden growth brought about by the arrival of the projects in order to reap the benefits of that growth, i.e., more job opportunities, financial benefits, etc.

P. ATTITUDES OF NEWCOMERS ABOUT LIVING IN GREEN RIVER

Most newcomers to Green River came there for work-associated reasons, (i.e., job transfer, better paying jobs available, etc.). In fact, over 82 percent of the newcomers originally came to town for these reasons. All newcomers were given a list of 18 descriptive words (for complete list, see Household Survey questionnaire in the Appendix) and asked to select the two or three words which they felt best described the community. Some of the words were descriptive in a positive way, some were negative, and some were neutral. Negative words (lonely, dull, unfriendly, isolated, difficult, expensive, and dirty) were chosen 50.3 percent of the time.[22] Positive words (easy, happy, modern,exciting, rewarding, friendly, and relaxed) were chosen 35.3 percent of the time, and neutral words

---

[20] Another 5.7 percent of the respondents gave no opinion.

[21] Respondents were encouraged to give more than one reason for their feelings, so percentages can add to more than 100.0.

[22] Respondents' first two choices were included for analysis. So there was a total of 292 answers to this question, with 148 persons responding.

(competitive, impersonal, conservative, and slow-moving) were chosen 14.4 percent of the time. Obviously, there can be some argument about the classification of these words into positive, negative, and neutral. For instance, "isolated" could be considered quite positive by some people, and "impersonal" might be considered negative rather than neutral. An attempt was made to attach the values that most respondents seemed to attach to these words.

The most frequently mentioned descriptive words were "expensive" (18.5 percent of all responses), "friendly" (15.4 percent of all responses), and "dull" (10 percent of all responses).

Respondents were then asked to name the things they liked most about living in Green River. The most frequent answers to this question fell into four groups: surrounding area, environment, and atmosphere (33.5 percent of the respondents), job-related answers (30.3 percent of the respondents), people-related answers (e.g., "friendly people") (29 percent), and recreation opportunities (29 percent). The most frequently mentioned single answers were "friendly people" and "rural atmosphere", each of these answers being given by 20 percent of the respondents.[23]

When asked what they like least about living in Green River, the most frequently given category of answers was the lack of adequate community facilities and housing (45.3 percent of the respondents). Other frequently mentioned groups of complaints were the environment and physical surroundings (42.8 percent of the respondents), and lack of recreation and entertainment opportunities (21.4 percent).

IV. COMMUNITY SURVEY

A. METHODOLOGY AND PROCEDURES

Although the primary objectives of the CONSTRUCTION WORKER PROFILE had to do with the gathering and processing of large quantities of data necessary in assessing the socio-economic impacts of large-scale construction projects, it was felt that there were important issues not dealt with in the Project and Household Surveys which warranted some attention. These had to do with the effects of large construction projects on individuals and on the institutional and social structures of their communities. These questions are many times more difficult than most of the descriptive and simple analytic problems dealt with in the Project and Household Surveys. However, comprehensive theoretical models to deal with these phenomena are so highly generalized as to be of little guidance. As a consequence of this, the relevant empirical literature is more a collection of case studies than a generalized set of hypotheses and quantified relationships that would help assess the social effects of rapid growth on individuals and groups.

---

[23] Respondents were encouraged to give more than one answer, so many gave two answers. Therefore, percentages add to more than 100.0 percent.

Although the complexity and difficulty of the task were apparent, it was felt that these questions were sufficiently important that a modest effort be made in each of three communities to assess the personal and social consequences of construction activity. Center and Langdon, North Dakota, and Rock Springs, Wyoming, were the communities included in this section of the study. Reports on the Community Survey findings for Langdon and Center appear in the Community Reports for those towns.

Ethnographic methods of direct and participant observation were utilized by field researchers. A social scientist lived in Rock Springs for about 2 weeks, and, in the course of living there, used community facilities, met residents, and conducted informal interviews. Use was made of available written materials from the community, including institutional records (e.g., arrest reports, welfare caseloads, city budgets, etc.), daily newpapers, telphone directories, and Chamber of Commerce or other promotional material. Secondary resources, primarily U.S. Census information, previous research reports, planning documents, and other governmental documents were also helpful.

The people living in the community from whom information was sought included newcomers to the community, long time residents, and institutional representatives (i.e., persons in positions of responsibility in government, education, social services, business, religion, and recreation). These individuals were questioned with respect to social changes (i.e., changes in the forms and patterns of social life) and cultural changes (i.e., changes in the content of social life--the beliefs, norms, and values of the community.) The methods used to obtain information combined the loose structure of ethnography with the more rigid structure of traditional survey techniques appropriate to the complexity of the phenomena being investigated. Without some consistent use of structured questionnaires it was felt that little more could be gained than the researchers' impressions of what was happening to the community and its residents. Copies of both the Individual Interview Schedule and the Institutional Representative Interview Schedule are in the Appendix.

This section of the Community Report for Rock Springs and Green River will discuss first the history and sociological profile of Rock Springs. A discussion of the construction of the Jim Bridger plant will follow; and finally the impact of the project on persons and institutions in Rock Springs and their responses will be reported. This report focuses on the situation existing in Rock Springs during the summer of 1975, the time during which the Community Survey took place.[24]

B. COMMUNITY HISTORY AND SOCIOLOGICAL PROFILE

1. Historical Sketch

Rock Springs is set in the barren and rugged country of southwestern Wyoming, a land that some people find exciting but that others find stark and unwelcoming. The mineral wealth that lies beneath the surface of the land has, however, long been an attraction. The area was first opened to exploration by beaver trappers in the 1820's, and it was only two decades later that coal deposits were discovered in the area. Those discoveries eventually led the Union Pacific Railroad to start prospecting in the area in the 1860's, and from that time on, the history of Rock Springs has been intricately bound up with the activities of the Union Pacific Railroad. The town had been established during the 1850's as a stage stop for the Overland Trail going West. Gold rushes occurred in the area in the late 1860's and mid 1870's, pushing the population of the new town to nearly 3000.

Rock Springs continued to grow, primarily as a company town for the railroad and for the coal mining industry that served the railroad. It was also a trade center for a five county region (with a present population of 50,000 people) and as a center for sheep and cattle raising. Many different ethnic groups came to work in the area. (It is said that at one time 55 different ethnic groups lived in the community, and many still maintain their cultural integrity.) In the late 1950's when the railroads switched to diesel power, coal mining declined until there was only one mine operating in the late 1960's. Abundant reserves still remained in the ground waiting to be tapped. Trona mining was in its infancy and offered only a few jobs. The diminishing importance of railroad transportation, to which Rock Springs' economic fate was so closely tied, also contributed to the town's economic decline. Consequently, many people left to seek work elsewhere. As Rock Springs entered the decade of the seventies, its population was 11,674, only about 12 percent more than its 1960 population.[25]

---

[24] A pretest of survey methods and instruments took place in Green River in Spring, 1975. When relevant, observations of the situation existing in that town may be included in this discussion.

2. Sociological Profile

a. Cultural Definitions

Rock Springs prides itself on its western way of life, which includes among its several elements the following: small town living with its customs of friendliness, neighborliness, and mutual aid; a love of the great outdoors; and adherence to traditional, conservative values, including close family ties, traditional sex roles, and a strong religious life.

The positive aspects of small town life are highly valued by the respondents: the slow pace, the neighborliness, the open, relaxed atmosphere. Some respondents feared that the style was slipping away, while others felt that it was being preserved, in comparison to cities like Denver and Salt Lake City. But the value of these aspects of life in Rock Springs remains the same for all but the youngest respondents: small town life is good. The proximity to wilderness areas is also extremely important to many of the respondents. Many hunt, fish, camp, and ride dirt bikes and snowmobiles.

b. Institutional Patterns

Before the period of rapid growth, the governmental functions were only the basic ones; such functions as planning and zoning were virtually absent. A city engineer working on a contract basis did whatever planning was done. There were no professional administrators in public service positions and decision-making was often seen as the prerogative of a small clique. Relatively few ordinances were passed by the city council. The 1969-1970 city budget represented less than one-third the per capita expenditures of the '75-'76 budget.

---

[25] U.S. Bureau of Census, 1970 Census of Population General Social and Economic Characteristics: Wyoming (Washington, D.C.: U.S. Government Printing Office, 1971), p. 52-127.

Economically, the community was in a transition phase: coal mining and railroad employment were declining; trona mining and oil and gas production were expanding. In 1970, the mining industry employed the greatest number of people. The second greatest number worked in the service sector; in fact, more worked in that area than worked for the railroad and construction industries combined.

Before the construction boom, housing was already scarce, although some was available in the forms of mobile homes, apartments, and small homes. Much of the land around Rock Springs is owned by the Bureau of Land Management or by Upland Industries, a subsidiary of Union Pacific. The lack of available land prevented major housing expansion.

The city's schools were old and outdated, and classes were large. The education offered was a basic one, and little or no emphasis was placed on such activities as school social work, student career counseling, or student psychological counseling.

In 1970, Rock Springs had eight physicians, with only seven engaged in direct patient car. Health care was a problem at that time, as it is today. Many people traveled out of the state, primarily to Salt Lake City, for medical care and hospital treatment. Rock Springs' only hospital was the Sweetwater County Memorial Hospital, built in 1898. Most social agencies were small, and the lack of complete hospital records about pre-boom caseloads testifies to the relatively informal modes of operating that prevailed.

Recreational facilities in the community consisted of seven neighborhood parks, comprising 6.5 acres. The major source of recreation was the surrounding area, which includes Green River and the Flaming Gorge National Recreation Area. Fishing and hunting were the recreational mainstays. Private sector recreational facilities consisted of two bowling alleys and one movie theatre.

C. PROJECT HISTORY

1. Background of the Projects

Any picture of industrial activity in Rock Springs is complicated by the presence of three major sources of industrial development: trona mining, energy production, and railroad transportation.

Trona was first mined in the southwestern part of Wyoming in the 1940's, but intense development did not start until two decades later. At present the major extractors of trona for the production of soda ash (used in the production of glass, as well as for baking soda) are Allied Chemical Corp., Stauffer Chemical Corp., the Food Manufacturing Coporation (FMC), and Texas Gulf, Inc.
The mining is taking place on lands leased from the Bureau of Land Management or from Upland Industries. (Actually Stauffer is partially owned by U.P.). At the end of 1974 the work forces numbered: 473 for Stauffer; 890 for Allied, including their construction workers; 365 for Texas Gulf, Inc., including construction workers; and 1150 for FMC.[26] During 1973-'74, construction workers in the area numbered about 4800 and miners about 2600. Pre-boom figures for these two occupation categories were 400 and 1500, respectively. Most of the companies are in the process of expanding their operations now, which accounts for the continued presence of large numbers of construction workers complementing the relatively small permanent work forces at the plants and the mines.

Energy production was greatly increased when the Idaho Power Company and Pacific Power and Light announced in February, 1970, that they would construct a power plant east of Rock Springs. A sizable work force was required during the construction period, numbering almost 900 within two years of groundbreaking, and peaking at 3000 during the summer of 1973. (There were about 1300 construction workers remaining at the plant in the summer of 1975). The Jim Bridger power plant will eventually have four units, only one of which is operational at the time of this report. Two other units are scheduled to be operating by March and December of 1976, and a fourth unit is planned for completion in mid-1979. The first unit of this steam-electric plant began operating in the fall of 1974, producing 2 million kilowatts of power, some of which is supplied to local trona operations. Associated with the Jim Bridger power plant is the Bridger Coal Mine. At present, the mine and the plant each employs about 90 persons, although the full four units of the plant will eventually provide jobs for 300 persons.

Expanded oil and gas exploration is also occurring in the county, and these activities are becoming significant contributors to economic expansion and population growth.

As a result of all this local industrial activity, the business of the Union Pacific, around which the town originally grew up, has increased. The U.P. has now modernized and expanded its facilities to haul coal and soda ash, as well as grain.

---

[26] Rock Springs Rocket-Miner, March 15, 1975, pp.14E-15E.

Associated with these main sources of growth, there are smaller coal companies, as well as auxiliary facilities such as water-pumping stations, spur rail lines to the plants, and truck roads from the mines and plants to the main highways contributing to the area's growth.

At the time of the report, most of the industrial building operations have peaked with new facilities scheduled to be operational in 1976, although some companies have plans for new facilities to be built over a number of years.

2. Project Entry

Trying to obtain precise recollections about the period during which the projects first appeared is difficult, but there is a strong consensus among those able to recall that the period of project entry (at least for the Jim Bridger plant) was a difficult one because of inaccurate information about the expected number of construction workers being used as a basis for planning.

The Pacific Power and Light Company, co-owner of the Jim Bridger plant, held meetings with the community about 1 1/2 years before the project was started, but employment figures used at that time by the Bechtel Corporation, the prime contractor, turned out to be grossly inaccurate. Bechtel projected a peak work force of 1200-1500, whereas the actual peak force was over 3000.[27]

The institutional representatives interviewed generally felt that the information from the companies was inadequate and not very timely (60 percent felt that way). Fifty-eight percent said that the companies did not deal fairly with the community. Respondents from the business community and workers in the helping services were most critical of the companies in this respect.

---

[27] This discussion of project entry focuses most heavily upon the Bridger project since the trona mining and railroading are activities which were already occurring in the area.

D. IMPACTS AND RESPONSES

1. Institutional Impacts

a. Government

Though Rock Springs is the most developed of the three communities included in the Community Survey, the impacts it suffered were greatest in severity, and, therefore, the demands placed upon the local governing units were the most severe. When the population of a city more than doubles in a 5 year period, every system is strained to capacity.

Municipal services, such as water supply, sewage treatment, garbage collection, and street maintenance, were all greatly affected. The city's water system, operated by Pacific Power and Light, is currently operating effectively, with a generally adequate supply of water that meets health standards. The sewage treatment facilities are not adequate--capacity is limited, and effluent standards are barely being met. Solid waste is disposed of in a sanitary landfill which has never been properly cared for, is at capacity, and fails to meet Environmental Protection Agency standards. Streets and roads have suffered from increased traffic and are still in poor condition at this point.

Police and fire protection were also affected by the increased population. Since 1970, police radio calls have more than quadrupled, traffic accidents have doubled, arrests from accidents are up 66 percent, and the number of complaints taken to court has risen 150 percent. The police department's ten person staff of pre-boom times was clearly inadequate; crime increased in all categories, including ones never before experienced to any significant degree in the city. Construction workers were seen, correctly or incorrectly, as the cause of the higher rates of drunkeness, drug abuse, bad check writing, and prostitution. From 1969 to 1974, the number of fires in the city rose from 104 to 226 annually, and the estimated damage rose from $45,000 to $179,000 per year. Trailers in and around the city constituted the main source of fire calls.

Responses by the town government to these and other problems have been varied in form and effectiveness:

1) Efforts are being made to improve community facilities: solid waste disposal facilities and roads are being studied for possible improvements, police and fire fighting staffs have been

expanded, and a moratorium has been placed on sewer connections until a new system is built in 1976, salaries for policemen and firemen have been raised to competitive levels.

2) A narcotics task force has been formed in association with Green River and the county.

3) A full time planner has been hired and city government departments have been restructured.

4) The city recently annexed 2900 acres of land to be auctioned to private developers for the construction of housing.

5) A city sales tax has been instituted, which must be approved by the voters every two years, and the city's mill levy has gone from 3/4 mill in 1970 to 5.5 mills in 1975. Of the latter, 60 percent has been earmarked for capital improvements, indicating that the city is still responding to basic growth problems.

The county, too, has increased its staffing in areas such as sanitation and zoning inspection, the county clerk's office, and the county attorney's office. The increased construction has increased the county's assessed valuation. Thus, the county has been able to increase services without increasing the mill levy. In addition, impact legislation at the state level has allowed the county to increase its bonding capacity.

b. The Local Economy

The rapid development of the area has obviously affected the local economy. New businesses opened at the rate of one every two weeks during 1974. Several business people indicated that their businesses were doing extremely well and felt that Rock Springs was their "golden opportunity". They have faced some problems, however: inordinantly high numbers of bad checks more frequent break ins than in previous years, high salaries necessary to keep employees who might otherwise be lured away to higher paying construction jobs, and high employee turnover. One motel with 60-70 staff positions employed 450 different persons during 1975.

Housing shortages in Rock Springs have been severe, mostly because of the scarcity of land for development and the inaccuracy of population projections. As the population growth rate slowed and home construction continued, the housing supply began to meet demand.

However, some families who arrived in 1974 reported that they purchased mobile homes because no other homes or apartments were available. The number of mobile homes in Rock Springs multiplied by 850 percent between 1970 and 1974, and in outlying areas, the increase was 1500 percent. Many families reported living in motels for up to six months while looking for housing. Thus, neighborhood patterns in Rock Springs do not reflect income or professional categories in the way they normally do in other places. Rather one's neighborhood is a reflection of length of residence in Rock Springs or, to a lesser degree, company affiliation.

There was much disaatisfaction among community residents with both the cost and the quality of housing. The city has built some housing for the elderly and low income persons--those most hurt by the soaring cost of living, and the mining companies have played major roles in developing housing for their employees, the majority of these units being in Green River. A few of the construction companies provided mobile homes for their higher level employees (e.g., engineers); these units are in Rock Springs. Thus, miners tended to live in Green River while those not connected with the mines found it almost impossible to find housing there. Construction workers and employees of the oil and coal companies lived in Rock Springs.

c. Education

One of the community institutions most immediately affected by a burgeoning population is the school system. In Rock Springs, during the period from September, 1970 to Sentember, 1974, school enrollments rose 48 percent as the population doubled. The fact that so many of the newcomers were young, pre-child families may have been the only thing preventing even greater enrollment increases, although that fact portends greater future enrollments, should those people remain in the community.

To cope with the tremendous enrollment growth and the inflation, the school district has had to ask the voters twice for bond issues; $5.3 million in July, 1973, and, again in October, 1974, for $5.48 million. (The Green River school district also voted in a $5 million bond issue in February, 1975.) Mos schools are now near or over capacity, although three new buildings will be completed by the end of 1975 and should serve the district's needs until 1980. There are already signs of a decrease in enrollment with a drop of 280 students from December, 1974 to March, 1975.

The higher education needs of the area's population are served by Western Wyoming College (WWC) in Rock Springs. Established in 1959, this is one of seven state junior colleges. Beginning with 40 night students in 1959, the college had almost 1700 students enrolled in day and evening classes in 1975. While full time enrollment has risen, so has the number of part time students who are working days and going to school in the evenings. The greatest demand has been for vocational courses, and programs have been introduced in such areas as data processing, welding, machinery, automotive electricity, engineering technology, mining technology, and chemical technology. Local industry also sends personnel to WWC for in-service training.

The Carnegie Public Library reports a significant rise in circulation over the five year period, from 165,000 volumes per year in 1970 to 264,000 volumes per year in 1975. The staff reports an unusually high use of the facilities by construction workers in the evenings and on Saturdays. As one worker reported, "It's still the quietest and cheapest place in town".

The library has lost a considerable number of books over the last few years. At the present time there are no books on welding, carpentry, etc; these have been replaced only to disappear again. A building and expansion program that commenced prior to the boom will soon be completed to provide more space and facilities.

d. Helping Services

The human costs of the rapid growth have been substantial, and all helping services--medical, dental, mental health, and social services--have been hard pressed to deal adequately with them. Persons responding to the Institutional Representative interview from this community sector were among the respondents most critical of institutional responses to the growth that has occurred.

Health care and medical facilities continue to be a serious problem facing not only Rock Springs, but the entire southwestern part of Wyoming. Health care was a serious problem prior to the boom and has only been aggravated by the influx of new residents to the area. In fact, some long time residents hope that the population growth will enable Rock Springs to provide adequate medical facilities, through an increased tax base. There is a critical shortage of physicians and other health professionals. Currently there are 13 physicians, and by most standards there should be 30 or more. Sixty nurses, 4 physicians' assistants, and 15 dentists make up the remainder of the community's medical personnel. The recruitment efforts have been hampered by such factors as the community's isolation, the environment, heavy patient load, scarcity of support personnel, and limited housing. Since 1970, recruitment drives have netted the community an increase of only three physicians.

The Sweetwater County Hospital reports heavy usage of its emergency room--up to 1300 cases per month during the peak of the boom--while inpatient care is about the same as before the boom period. Many persons are unable to get appointments with doctors, and thus go to the emergency room for routine medical care. Surprisingly, there were very few construction-related accidents during the last several years. Stabbings, beatings, and other violence-related incidences have increased, however.

The Sweetwater County Nursing Service also reports an increase both in types of services provided and in requests for services. One pattern sensed by representatives of the nursing service is delay of needed treatment on the part of transient families: such things as pre- and post-natal care are put off, as are immunizations. The nursing service, too, has been hampered by an inability to attract more personnel, partially caused by the low pay scale.

Sweetwater Health Services, Inc. helped start a program training physicians' assistants, medical personnel who work under the guidance of physicians, and since then has been working to form a Health Maintenance Organization.

A bond issue in the amount of $5.5 million was passed in September, 1973, to build a replacement for the 77 year old county hospital. The 100 bed replacement, which has the same in-patient capacity as the existing hospital, will give the area 38 more beds than Hill-Burton standards call for, in addition to increased and updated emergency room facilities.

Mental health services have also been in greater demand; there has been an 885 percent increase in the caseload of the Southwest Counseling Service over the last 5 years. Interestingly, much of the increase is coming from long time residents having difficulties adjusting to the changes brought by enormous growth.

Elsewhere in the helping services sector, the Sweetwater County Department of Public Assistance and Social Service reports a significant increase in child abuse and child neglect cases, and attributes much of it to the problems of young families living in mobile home courts. Cases of child abuse and neglect have increased from 41 in 1972 to 83 in 1973, and 73 in 1974. Juvenile court cases also showed a similar rise with 26 cases in 1972, 36 cases in 1973, and 97 cases in 1974.

2. Social Impacts

The almost inevitable divisions that develop in a boom community between the long time residents and the newcomers are aggravated in Rock Springs by the housing shortages. Newcomers live wherever they can find housing, thus they tend to settle in mobile home parks and in new subdivisions. In both cases their neighbors are almost exclusively other newcomers. The pattern is intensified in company-supported housing where the residents are not only new but also work for the same company.

Although most respondents (both newcomers and long time residents) reported "knowing" a few members of the other group, these were primarily acquaintanceships formed at work. There is very little social interaction across the old/new division away from the job. However, that small amount of interaction does provide a basis for tolerance. Long time residents, when criticizing newcomers, are careful to point out that they are only referring to a trouble-making minority.

Criticism from long time residents is often understandable. Over one-third of the new construction workers at the Jim Bridger plant did not have families with them. (Some had families elsewhere; others were single.) Members of this group have almost no ties to the community. Much of the money which they spend in Rock Springs goes, often by the hundreds of dollars per week, into entertainment and clothes. (Sales of alcohol and drugs are reportedly high, and prostitution is apparent in certain areas of town. It may be assumed that "entertainment" for some respondents includes one or more of these things.) It is impossible to measure the effects of this activity on Rock Springs, but it definitely has a psychological effect. Many residents avoid certain sections of town, particularly at night when bar fights seem to be frequent.

Long time residents indicated several sources of resentment toward newcomers. Newcomers often had the best paying jobs. Long time residents felt that they had more right to those jobs. One respondent reported that the unions advertized job openings at the Jim Bridger plant in their national magazines before the local people were informed of them. The union locals for the Rock Springs area are located in Cheyenne and in Salt Lake City, so residents of those areas are more likely to be accepted as apprentices than are residents of Rock Springs. Although the long time residents blame the companies rather than the newcomers for the lack of job opportunities, resentment at having to face the problems of the boom (inflation, vice, change from a small town to a large, urbanized town, etc.) without getting their share of the benefits of the boom (high paying jobs) is strong.

Another source of friction between long time residents and newcomers is the former's belief that the changes are caused by the newcomers themselves, rather than by the tremendous growth. For example, incidences of vandalism have multiplied and are often mentioned. Most long time residents assume that the vandals are newcomers since vandalism was not a problem before they arrived. Many of the vandals, however, appear to be long time residents who, because of the growth and the resulting anonymity, apparently feel greater freedom to engage in unacceptable activities. Long time residents also resent the criticism the newcomers level against Rock Springs. Their attitude is, "If they don't like it, they can leave".

There is some indication that the hesitancy of some long time resident students to form friendships with newcomer students comes from a belief that the newcomers will be moving away soon anyway. It is unclear what percentage of the newcomer population was truly transient at the peak of the boom since the majority of the transients had left Rock Springs by the time this study was conducted. Some proportion of that group was apparently free from many social constraints. Defaults of all types were endemic. Businesses and particularly banks are very fearful in their dealings with newcomers now. Nomadic children still present special problems for the school system.

Of course, many of the newcomers are neither single nor transient. In fact, many construction workers with families chose to move to Rock Springs specifically to settle down with their families. They felt that the multitude of large construction projects in the area would provide work for about 10 years. Thus, they could go from project to project without having to relocate. This would allow them to keep the family together. The newcomers, particularly the families of construction workers, must overcome their frequently undeserved reputation if they wish to become part of the community. A few very energetic newcomers succeed. Most, however, simply live in a subculture of newcomers. This is particularly easy for those who live in the newcomer "compounds"--new subdivisions and mobile home parks. The most insular compounds, those built by the large chemical and construction companies, seem to provide the strongest social support structure for the newcomers. In fact, the upper echelon employees of those companies who have been transferred to the Rock Springs area seem to view this transfer like all other transfers, perhaps more of a hardship post because of the area's severe climate and lack of services. Their neighbors include friends made at other postings and some new people whom they will encounter at other, future posts.

The lower echelon employees, who were not transferred to Rock Springs, but who simply signed on to work there, are less insulated from the community, but they are surrounded by neighbors who are much like themselves and who are frequently lonely and eager to make friends. In response to the interview, some said that Rock Springs was "friendly", and others said it was "unfriendly". Those who gave the first response were thinking of their immediate surroundings, of the tremendous amount of neighboring in which they engaged. The second response came from those who did not define themselves and their newcomer neighbors as "Rock Springs", but as outsiders. In their minds, "Rock Springs" was defined as the long time residents, primarily the people they dealt with in public: sales clerks, institutional representatives, etc. While those respondents thought that their neighbors were friendly, they found others cold.

The segregation between old and new residents, while mitigating against community unity and having potentially negative effects on political and social interaction in Rock Springs, does provide for social support for the newcomers. This support is particularly important for women, for whom life in Rock Springs can be particularly hard. The majority of wives in Rock Springs does not work outside the home. Their husbands' wages are sufficiently high that they do not need to work, and many believe that if a man can support a family on his pay alone, the wife should not work, particularly if she has children. For men, work is extremely important. Usually it is their only reason for being in Rock Springs. At the very least, it provides the opportunity to leave home each day and to be with other people. But for a significant number of others in the trades, in business, and in the professions, their jobs in Rock Springs offer their first opportunity to learn skills, be in positions of responsibility, or perhaps to begin their own business. Wives rarely have these opportunities. Newcomer wives are rarely active in community organizations, nor do they have local family ties. For many newcomers, the opportunities for outdoor recreation in the area more than compensate for the hardships of living in Rock Springs. But most women do not participate: fishing, hunting, snowmobiling, dirt-biling, etc., are generally men's sports. The wife of a construction worker, who lived in a trailer with her husband and two teenaged children, summed it up: "It's a man's world here". Thus, the opportunities to vist with other women are extremely important for newcomer wives.

The physical environment has strong personal impact, again, particularly for newcomers. The land itself is stark: there is little vegetation to hold topsoil; the wind blows constantly. Many newcomers, used to greener or warmer places, find the land and the weather constant hardships. Many respondents said that they thought that Rock Springs was dirty. They did not mean littered; they meant that there was dirt, carried on the wind, that covers them when they go outside and, despite their efforts, seeps into their homes every day. Much energy goes into fighting the wind and the dust. The problem is particularly bad near construction sites where the little ground cover that exists is torn up. Thus, the tremendous amount of new construction has aggravated the problem. For newcomers who are happy in Rock Springs the problem is a trivial, if constant, irritation. For those who are not happy there, that particular irritation assumes major proportions.

E. SUMMARY AND CONCLUSIONS

Of the three communities studied in the Community Survey, Rock Springs suffered the most severe impacts. Though other communities in the survey underwent proportionally equivalent growth, none has sustained a similar in-migration in terms of absolute numbers of people. Fourteen thousand new people came to live in Rock Springs between 1970 and 1975. The expanding population necessitated great expansion in the capacities of every institution and community facility in Rock Springs: schools, shopping facilities, the sewage system, postal service, housing, law enforcement, etc. Not only was change in size necessary, a change in kind was demanded in both private and governmental institutions. Structures and styles sufficient for a small western town were inappropriate when that town became the locus of some of the most rapid industrialization and growth in the United States. Stores, helping agencies, government agencies, schools, etc. had to do more than simply expand their staffs and operations. They had to change what they did and how they did it. No longer was an informal, personal style sufficient. Rock Springs was catapulted into urban, mass society. The need for change was further complicated because Rock Springs had to respond to a number of special populations: transients, men without families, as well as traditional nuclear families, and a large population of retired people.

There is a time lag between the perception of a problem and the point at which resources have been gathered and organized to meet that problem. Then, even more time must pass before the efforts at solution can have any effect. The ideal way to compensate for this time lag is to prepare in advance to meet forseeable needs. But, in 1971, when the Rock Springs boom began, there was little understanding of what kinds of changes a "boom" brought to a town. The word "impact" was a new one in the nation's vocabulary. Even if the knowledge of what might occur had existed at that time, employment projections provided by the companies were completely inaccurate.

Furthermore, communities affected by energy development did not have access to federal funds. Rock Springs had to rely almost exclusively on its own resources, primarily increased taxation, which the original residents had to bear to a greater degree than did the incoming population. Although the companies apparently made some monetary contributions to the town during the period of greatest impacts, they were not large enough to prevent property tax increases and the passage of a city sales tax. The burden of providing community services and facilities to such a rapidly increasing population was huge.

The boom has peaked in Rock Springs. Services and facilities are beginning to match demands in most areas. For example, by Summer, 1975, there was almost enough housing, although respondents complained about cost and quality. A new junior high school opened during the fall of 1975, and school building capacity is now adequate. Three new grocery stores have opened, so shoppers no longer face long lines. At the time of this study, anticipated further growth was being planned for. For example, Stanbury Coal Company, about to open a mine, is building housing in advance for its employees. The company will make the homes available to local people as well as to their own workers, and will make purchasing the homes easier by allowing occupants to build up down payments with part of their rental payments.

New kinds of people have entered the community. It is now ready to assume more importance as a regional center; economic prospects and opportunities are greater now that provincial horizons have been broadened.

Many in Rock Springs maintain angrily that Rock Springs has been maligned both in socio-economic studies and in the popular press. It is unfortunate for Rock Springs that, because it was one of the first communities to suffer such extreme impacts, it had to learn from its own mistakes. However, its experience has been and will continue to be valuable to other communities facing rapid growth, because it has provided a graphic demonstration of the difficulties which can be encountered by communities facing rapid growth without adequate preparation and information about the magnitude and character of that growth.

APPENDIX

A. CAPITAL FACILITIES: ROCK SPRINGS, WYOMING

Water

Pacific Power and Light operates the water system for Rock Springs and Green River. The treatment plant, which serves both towns, is located in Green River, the water is pumped from there to Rock Springs (about 12 miles). The water system serves 32,000 people in Rock Springs and Green River. The water source is the Green River. PP&L owns rights to 20 second-feet, and is now applying for twice that amount. Twenty second-feet is equivalent to about 12,960,000 gallons a day, an amount more than adequate to supply the present populations of Green River and Rock Springs. Rock Springs has storage capacity of 8 million gallons and PP&L is presently increasing the capacity to 10 million gallons. This is several times the storage capacity necessary to protect Rock Springs adequately from fire. Peak daily usage for Rock Springs and Green River is 6 to 8 million gallons (187 gallons per capita). The water treatment plant has a capacity of 12 million gallons per day, which is more than adequate for the current population. The distribution system is, according to PP&L officials, in good condition. The transmission system from the plant in Green River to Rock Springs has just been replaced. The water quality meets U.S. Public Health Service standards. The only problem mentioned in connection with Rock Springs water system is that fire flow is inadequate in some sections of the city. This is not because of limited storage capacity, but is apparently because of inadequate water pressure in certain areas.

Sanitary Sewer

The present sewage treatment plant, built in 1953, is a trickling filter plant including a bar screen raw sewage pump station, two primary sedimentation tanks, one single stage digestion tank and sludge drying beds. The plant was designed with a treatment capacity of 2 million gallons a day. Average daily flow is 1.33 million gallons, and peak daily flow is 2.9 million gallons. Obviously, the treatment plant is overloaded on peak flow days. The effluent barely meets current state standards. By 1977, standards will be stricter.

Rock Springs has grown so quickly that areas of extreme growth outside the city have not been included in the city's sewer system, and private treatment facilities are in use. Many homes have septic tanks, and some of the mobile home parks have oxidation ponds. The inclusion of these areas outside the city in the Rock Springs sewer system would increase the system overload by some 20 percent. One Planned Unit Development outside the city has a package sewage treatment plant capable of treating 750,000 gallons per day. It is possible that the city could reach an agreement with this development to connect it with the city's system to supplement it until the city's plant is expanded.

The collection system should be replaced in some areas of the city. Some of the lines are old and deteriorating, and some are overloaded. Apparently, there is a continuing problem with pipe failures because the city is built above a network of mine shafts, and areas of town sink periodically, causing, among other things, pipe displacement.

Solid Waste Disposal

Rock Springs leases a landfill site from the Bureau of Land Management. The site comprises about 160 acres and is about 90 percent full. The city engineer estimates that it will be completely filled in one to two years. It is currently operated and maintained by a private contractor. Residential garbage collection takes place once a week and is considered adequate. Commercial collection is considered inadequate in some areas. EPA standards for solid waste disposal are not being met and the state agency is not enforcing its standards. Reclamation is problematic because the site was improperly maintained throughout its life. A study is being conducted to determine the feasibility of setting up and operating a sanitary landfill site which would be used jointly by Rock Springs, Green River, and Sweetwater County. The site would probably comprise 320-480 acres. There is as yet no commitment from any of the prospective participants.

Police Department

The Rock Springs Police Department employs a chief, a lieutenant, 2 sergeants, 14 policemen, a traffic officer, 2 detectives, 4 dispatchers who also serve as matrons, 2 secretaries, 2 meter maids, and a janitor. According to recommended standards for towns with populations of more than 10,000, there should be 1.5 policemen per 1000 people. The Rock Springs Police Department, according to this standard, should have at least 15 more policemen. The department has 4 cars and 1 scooter. By most standards, there should be at least two more vehicles for the department's use at its present strength. Rock Springs does have a jail with 22 bunks, and there are two cells provided for women or juveniles. Approximately 800 square feet of office space in the city office building are used by the police department. Using a minimum standard of 100 square feet of office space for each police officer, there is presently a space shortage of about 1300 square feet.

Fire Department

Rock Springs has a permanent fire department with 15 paid employees and 3 volunteers. For a town the size of Rock Springs, there should be at least 33 paid employees in the fire department. There are two stations within the town limits, both in older areas of town. The fire department has three pumper trucks: one with a 750 gallon tank which can pump 1250 gallons a minute, one with a 500 gallon tank which can pump 1000 gallons per minute, and one with a 400 gallon tank which is capable of pumping 500 gallons per minute.

The department also has a four wheel drive utility vehicle. With revenue sharing, the fire department hopes to build another station in the western part of town, near much of the new housing development. A new ladder truck would also be bought if additional funds became available to the fire department. Rock Springs has a Class 7 fire protection rating, which is about average for towns its size. As mentioned in the section on water, fire flow is considered inadequate in some areas of town.

Schools

Rock Springs is within School District Number 1, which comprises Rock Springs, Superior, Reliance, and the eastern part of Sweetwater County. The table below shows enrollments, capacities, student-classroom ratios, and student-teacher ratios for the schools in Rock Springs.

School	Enrollment Capacity	March, 1975, Enrollment	Student/ Classroom Ratio	Student/ Teacher Ratio
High School	1,000	860	18:1	20:1
Junior High School	900	1,113	26:1	21:1
Elementary:				
Yellowstone (1-6)	590	612	27:1	27:1
Lincoln (1-6)	430	396	23:1	23:1
Washington (K-6)	415	415	24:1	28:1
Lowell (1-6)	150	157	22:1	22:1
Roosevelt (1-6)	150	170	24:1	24:1

As the table demonstrates, many of the schools in Rock Springs are crowded. The high school and Lincoln Elementary School are the only schools which have enrollments lower than their stated capacities. Fortunately there are three schools now being built, two of which will be finished by the end of 1975. White Mountain Junior High School will have an enrollment capacity of 500 students. This should relieve the crowding occurring now at Rock Springs Junior High, since only 700 students will be left at the older school. Two elementary schools are being built, with an enrollment capacity of 400 students each. If the enrollment projections for the elementary grades which were made in the Comprehensive Plan[1] are accurate, the increased elementary school enrollment capacity which will exist when the two schools presently under construction are completed should be adequate through 1980. Before 1985, however, additional schools for all levels, elementary, junior high, and senior high, should be built.

The recommended minimum size for high school and junior high school sites in rural areas is 27 acres. The Rock Springs High School site approaches the minimum recommended with 23 acres, but the junior high school site comprises only 10 acres. The minimum site size recommended for elementary schools in rural areas is 10 acres. This recommendation assumes an enrollment of 500. None of the three larger elementary schools, with enrollments ranging from about 400 to 600, has a site even close to the minimum suggested. The table below shows more detailed information.

School	Present Enrollment	Size of Site (acres)	Recommended Minimum Site (acres)
High School	860	23.0	27
Junior High School	1,113	10.0	27
Elementary:			
Yellowstone	612	4.8	10
Lincoln	356	5.2	10
Washington	415	3.2	10
Lowell	157	1.7	--[a]
Roosevelt	170	1.9	--

---

[a] Since most standards assume an enrollment of about 500, it is difficult to estimate recommended sizes for exceptionally small schools.

---

[1] Midwest Planning and Research, Inc., "Addendum and Amendments to the Comprehensive Plan: City of Rock Springs". (Minneapolis).

Medical Facilities

The Rock Springs Hospital serves all of Sweetwater County, Sublette County, Lincoln County, part of Uinta County, and parts of Northern Colorado and Utah--a population of about 40,000. According to Hill-Burton standards, and based on the number of patient days during 1974, about 62 beds would be required to provide adequate service. The hospital has about 100 beds. Emergency room facilities have been expanded recently to accommodate a startling increase in the demand for emergency treatment. Before 1970 the hospital treated 300-400 emergency cases per month; now, 1500 cases per month are treated. A contract was let during the summer to build a new 100 bed hospital. Capacity will not be increased with the building of the new hospital, since the old one will not be used. The new hospital is being built simply because the existing facilities are outdated. The new hospital will not be larger, but it will have more modern facilities.

There are 13 doctors in Rock Springs, about half the number ordinarily recommended for towns of 24,000. There are 60 nurses, 4 physician's assistants, and 15 dentists. There are two ambulance services in the town: one with two station wagon ambulances, and one with three station wagon ambulances. The major mining and construction companies, of which there are at least nine, operate their own ambulance services.

Streets and Roads

There have been several studies concerning street conditions and traffic congestion in Rock Springs. Street conditions vary widely, with a few well-constructed streets of adequate width and many deteriorating or unpaved roads. There are apparently several plans for improving the streets and roads under consideration. This is one of the most obvious community facilities problems in Rock Springs. The streets are not only in poor condition generally, but traffic control is confusing, and in some places virtually nonexistent.

Recreation

Minimum standards for neighborhood parks suggest provision of one acre for each 1000 people. Using this figure, Rock Springs should have at least 24 acres of parks within the town. Presently, about one-third that amount is devoted to neighborhood parks and playgrounds. The Community Development Study[1] and the Comprehensive Plan[2] note the inadequacy of parks and recreation facilities in Rock Springs, and suggest improvements.

---

[1] Rock Springs Community Development Committee, "Rock Springs Community Development Study, 1973".

[2] Midwest Planning and Research, Inc., op.cit.

CAPITAL FACILITIES: GREEN RIVER, WYOMING

Water

Pacific Power and Light operates the water system for Green River and Rock Springs. The treatment plant, which serves both towns, is located in Green River. The water system serves 32,000 people in Green River and Rock Springs. The water source is the Green River. PP&L owns rights to 20 second-feet, and is applying for twice that amount. Twenty second-feet is equivalent to about 12,960,000 gallons per day, an amount more than adequate to supply the present populations of both Green River and Rock Springs. Green River has a current storage capacity of 2.5 million gallons. This will be increased to 4 million gallons in the next two years. This storage capacity will be adequate to protect Green River from fire. Peak daily usage for Green River and Rock Springs is 6 to 8 million gallons (187 gallons per capita). The water treatment plant has a capacity of 12 million gallons per day, which is more than sufficient for the current population. According to PP&L officials, the distribution system is in good condition, and is being improved by the enlarging of pipes in the southern part of Green River. Water quality meets U.S. Public Health Service standards.

Sanitary Sewer

Green River is currently serviced by a municipally owned sewage lagoon and a private sewage treatment plant, owned by Upland Industries. The city treatment plant, a 33.6 acre lagoon, was built in 1959 and was designed to serve a population of 5100 people. In 1973, the effluent of the lagoon failed to meet the federal standards for both BOD and suspended solids. In addition, it was then predicted that the discharge would also fail to meet either the nitrate or phosphate standards. The plant was already running over capacity in 1973. Nelson Engineering, the city engineers, conducted a study in 1973 and has submitted a plan to the EPA for the redesign of the present sewage treatment plant which would allow the town to meet present discharge standards for the year 1985. The redesigned system should adequately treat sewage for a population of 16,200. However, this is based on an estimated 80 gallon per capita per day design criterion which is considerably lower than the usual standard of 100 gallons per capita per day. However, redesign calls for flexibility such that both capacity and treatment levels may be adjusted to accommodate changes in population, usage, and effluent standards. According to Nelson Engineering, the contract for the new lift station in the northern part of town has been let and construction is expected to start in the fall of 1975. The contract for the new lagoon is to be let during the fall of 1975 with a possible completion date of Spring, 1976. When the new facilities are in operation, the Upland Industries treatment plant will be terminated, the service to be taken over by the new plant. This project is supported by federal funds.

Solid Waste Disposal

The town of Green River has a 20-year lease on a 40-acre site for use as a sanitary landfill. According to the town's Community Facilities Study, it is operated in an efficient, safe, and sanitary method. Unfortunately, the life of the landfill is expected to range only from 2 to 5 years. Apparently no definite plans have been made for solid waste disposal at the end of this 2 to 5 year period although a study was to be completed in the summer of 1975 to determine the feasibility of setting up and operating a site to be used jointly by Green River, Rock Springs, and Sweetwater County. The site is expected to comprise between 320 and 480 acres. There is,as yet, no commitment from any of the prospective participants.

Police Department

The Green River Police Department employs a chief, a sergeant, 8 policemen , and 1 detective. It is supported by the county sheriff's office through joint use of the jail, radio system, and dispatcher. Green River's police department will soon need its own dispatcher. According to recommended standards for towns of less than 10,000, there should be two policemen per 1000 residents. The Green River Police Department, according to this criterion, should have at least 8 or nine more policemen. The department has four cars. The police department is now located in one room of City Hall, with office space consisting of only 120 square feet. This is clearly inadequate. Using a minimum standard of 100 square feet of office space for each police officer, there is presently a space shortage of about 980 square feet. This is indicative of the general inadequacy of office space for municipal functions in Green River.

Fire Department

Green River currently has a volunteer fire department with 40 volunteer firemen. The fire chief and two captains are appointed by the Mayor and the City Council. There are two fire stations in Green River. Fire fighting equipment includes: a 1971 - 1000 gallon pumper, a 1974 - 750 gallon pumper and 250 gallon pumper, a 1955 - 500 gallon pumper, a 1952 - 500 gallon 4-wheel drive pumper, and a 1974 command truck. Fire Underwriters Insurance has given Green River a Class 7 fire rating, which is considered average for the town's size and characteristics. A new firehouse is soon to be constructed which should provide adequate space for the equipment and also increase the protection for the area of town developing most rapidly.

Schools

Green River is in School District 2. The school population of this district is expanding extremely rapidly, with an expected increase of approximately 500 students during the 1975-1976 school year. The enrollment in the system as of September, 1974 was 2300 students. Green River has been able to obtain revenue sharing money for the construction of new school facilities, but the community must bear the operating expenses of the expanded system. The table below shows the school situation in Green River as of September, 1975.

TABLE XIII

SCHOOL CAPACITIES FOR GREEN RIVER, WYOMING

School	Grades	Acres	Sept. 1975 Enrollment	Students/ classroom	Students/ teachers
Green River High	10-12	10.00	450	18.80	14.50
Monroe Junior High	7-9	5.00	505	21.00	17.40
Roosevelt	K-6	4.50	440	22.00	40.00
Washington	K-6	5.00	136	17.00	17.00
Jefferson	K-6	0.50	170	21.25	21.25
Harrison	K-6	3.00	--[a]	---	---
Granger (35 mi. out of town)	1-8	0.75	76	12.70	15.20
McKinnon (50 mi. south)	1-8	1.00	11	3.70	5.50
Thoman (ranch school)	1-8	0.50	1	1.00	1.00
Wilson	K-6	7.00	516	20.60	15.60

---

[a] School starts in October, 1975 - drawing from Wilson School

A new high school with a capacity of about 800 is currently under construction. A new elementary school will begin construction in the Spring of 1976 and another junior high school is planned in one more year. As can be seen, the system is coping with a wide variety of school situations. All the elementary school student-teacher ratios indicated have not included the five traveling teachers which are based in Roosevelt School. The system has expanded its teaching staff by 14 in the last year. As the table shows, through rapid expansion of staff and facilities, the Green River system has managed to maintain an acceptable student/classroom and student/teacher level, but the stress on administrative and teaching personnel must be high.

Medical Facilities

Green River is currently served by a medical clinic, staffed by only one doctor. The clinic itself is adequate for 2 or 3 doctors and can handle some emergency situations. There is a severe shortage of doctors, the Wyoming average being five doctors for a community of this size. Green River has only one. The hospital serving Green River is 15 miles away in Rock Springs. Memorial Hospital has a 98-bed capacity with an intensive care unit, cardiac care section, laboratory, and emergency facilities. A new hospital is to be built in Rock Springs to replace Memorial Hospital which, though not expanding the patient capacity, will result in a marked increase in quality of facilities. It should be noted that Rock Springs is also markedly short of physicians, with less than half the number ordinarily recommended for towns of its size. A recent study concluded that the Rock Springs hospital would be adequate to serve the Green River community, but that ambulatory services, including first aid, should be available in Green River. Green River has recently acquired two fully equipped ambulances. Ambulance service is manned on a volunteer basis. There is one county nurse. In general, the health care personnel are in severe undersupply.

Streets and Roads

The condition of many streets and roads in Green River presents hazards. There are a number of unpaved residential streets as well as paved streets which are in disrepair. Traffic congestion is high and the general traffic control is confusing and of poor quality.

B. SAMPLE PROJECT SURVEY QUESTIONNAIRES

PROJECT CENSUS QUESTIONNAIRE

1. What is your occupation (job title)? ________________ 1 ____
2 ____
2. What is your local address? ________ Street ________ Town 3 ____ 4 ____
3. a. Is your local address in the same town as it 5 ____
was before you started working on this job? (circle one) Yes No 6 ____
b. If no, where did you live previously? ________ Town ________ State 7 ____
4. What is your marital status? (circle one) Married Single Widowed Divorced 8 ____
IF SINGLE, WIDOWED, OR DIVORCED, PLEASE DO NOT ANSWER ANY FURTHER QUESTIONS. THANK YOU
IF MARRIED 9 ____
5. How many children under 18 do you have? ________ children 10 ____
6. a. Is your spouse living with you at your
local address (circle one) Yes No 11 ____
b. If your spouse is NOT living with you at 12 ____
your local address, where is your spouse
living? ________ Town ________ State 13 ____ 14 ____
15 ____

THANK YOU VERY MUCH FOR YOUR COOPERATION 16 ____

PRE-TEST QUESTIONNAIRE

1. What is your occupation (job title)? ________________
2. What is your address? (street & town) ________________
3. a Are you living in the same town you lived in
before you started working on this job? (Circle one) yes no
b. If no, where did you live previously (town&state) ________________
4. Are you married or single? (Circle one) Married Single Widowed Divorced
If married, widowed, or divorced,
a How many children do you have? ________ children
b. Is your family (spouse and/or children,
if any) living with you now? (Circle one) yes no
If your family is NOT living with you now,
1 Where are they living now? (town & state) ________________
2 Did they live there before you started
working on this job? (Circle one) yes no
3. If no, where did they live? (town & state) ________________

THANK YOU VERY MUCH FOR YOUR COOPERATION

C. SAMPLE HOUSEHOLD SURVEY INTERVIEW SCHEDULE

#______ ____________________
community

Do Not
Write
In This
Column

1. How long have you lived in (or near) this community? ________________

2. Family present_____or absent_____? (Observe when possible.)

3. Complete items A-E for all household members. Circle the household member number of the respondent.

Household Members

A. Relationship	1	2	3	4	5	6	7	8
Head of household								
Spouse								
Son or daughter of head								
Other relative of head								
Roomer, Boarder, Lodger								
Other unrelated to head								
B. Sex: Male								
Female								
C. Age: (actual age)								
D. Years of School Completed:								
less than H.S. Grad								
H.S. Grad								
College (no degree)								
College Graduate								
Some Grad. School								
Advanced degree								
Vo-tech School								
E. Marital Status:								
Now married								
Widowed or divorced								
Never married								

1-1 _____
1-2 _____
1-3 _____
1-4 _____
1-5 _____
1-6 _____
1-7 _____
1-8 _____
1-9 _____
1-10 _____
1-11,12 _____
1-13 _____
1-14 _____
1-15 _____
1-16 _____
1-17,18 _____
1-19 _____
1-20 _____
1-21 _____
1-22 _____
1-23,24 _____
1-25 _____
1-26 _____
1-27 _____
1-28 _____
1-29,30 _____
1-31 _____
1-32 _____
1-33 _____
1-34 _____
1-35,36 _____
1-37 _____
1-38 _____
1-39 _____
1-40 _____
1-41,42 _____
1-43 _____
1-44 _____
1-45 _____
1-46 _____
1-47.48 _____
1-49 _____
1-50 _____
1-51 _____
1-52 _____
1-53,54 _____
1-55 _____
1-56 _____

Do Not Write In This Column

4. What is the principal occupation of the household head?

____________________ 1-57 ____ 1-58 ____

(examples: teacher, carpenter, clerk)

In what kind of business or industry is his/her job? (probe) 1-59 ____ 1-60 ____

____

(examples: school, power plant, supermarket; if energy-related, name of project)

5. How long has the household head worked at this job? ____________ 1-61 ____

a\. What was the household head's previous occupation? 1-62 ____ 1-63 ____

____

b\. In what business or industry? ____________________ 1-64 ____ 1-65 ____

c\. Why did he/she change jobs? 1-66 ____ 1-67 ____

____

6. Do any other household members have jobs outside the home? yes ____ no ____ 1-68 ____

(Do not code.) 1-69,70 ____

If yes, complete the following grid: 1-71,72 ____

	Household Members		
	#2	#3	#4
relationship to head:			
occupation:			
industry:			
how long at present job:			
previous occupation:			
previous industry:			
Why the job change?			

1-73 ____
1-74,75 ____
2-1,2 ____
2-3,4 ____
2-5 ____
2-6,7 ____
2-8,9 ____
2-10 ____
2- 11,12 ____
2- 13,14 ____
2-15,16 ____
2-17 ____
2-18,19 ____
2-20,21 ____
2-22 ____
2-23,24 ____
2-25,26 ____
2-27,28 ____

7. a. Do you drive to work? yes ____ no ____ (Do not code.) 2-29 ____

b\. If yes, how far do you drive? (one way) ____________ miles. 2-30 ____

How long does it take? (one way) ____________. 2-31 ____

c\. If no, how do you get to work? ____________. 2-32 ____

How far is it to work? (one way) ____________ miles. 2-33 ____

How long does it take? (one way) ____________.

Please
Do Not
Write
In This
Column

8. How do the other members of your household who have jobs get to work? 2-34 ___ 2-35 ___ 2-36 ___ 2-37 ___ 2-38 ___ 2-39 ___

#2	#3	#4
_________method	_________method	_________ method
_________miles (one way)	_________miles (one way)	_________miles(one way)
_________time	_________time	_________time

9. Are most of your best friends here: 2-40 ___ 2-41 ___ 2-42 ___ 2-43 ___

_____people who have lived here longer than you have?

_____people who moved here at about the same time you did?

_____people who are newer to the area than you are?

10. Where did you meet most of your friends, or people with whom you socialize most frequently, in this area? (Rank top 3) 2-44 ___ 2-45 ___ 2-46 ___

_____at work
_____at church
_____at local bars
_____at clubs or community activities
_____at recreation activities
_____through relatives
_____in your neighborhood
_____at school
_____other

11. Do you own _____ or rent _____ your home? 2-47 ___

12. How many bedrooms are there in this house? ___________bedrooms 2-48___

13. Is your present type of housing the most satisfactory one for you, or would you prefer to live in another type? 2-49 ___

Present type satisfactory_____
different type preferable_____

14. If you would prefer to live in another type of housing, what type would you most prefer? (probe) 2-50 ___

____

15. Why aren't you living in the type of housing you most prefer?(probe) 2-51 ___ 2-52 ___

____

____

16. How long do you expect your present job to last?__________________ 2-53 ___

17. What are your plans for staying in this area? Do you plan to: 2-54 ___

_____ settle down here
_____ leave immediately
_____ stay as long as work is available
_____uncertain
_____ other (specify)
____

18. How satisfied are you with each of the following services in your area?

	very satisfied	satisfied	uncertain	dissatisfied	very dissatisfied	no service	Do Not Write In This Column
a. law enforcement	1	2	3	4	5	6	2-55
b. fire protection	1	2	3	4	5	6	2-56
c water supply	1	2	3	4	5	6	2-57
c. sewer service	1	2	3	4	5	6	2-58
e garbage collection	1	2	3	4	5	6	2-59
f. streets and roads	1	2	3	4	5	6	2-60
g. medical services	1	2	3	4	5	6	2-61
h outdoor sports	1	2	3	4	5	6	2-62
i indoor sports	1	2	3	4	5	6	2-63
amusements (restaurants, movies, etc.)	1	2	3	4	5	6	2-64 2-65
k. shopping facilities	1	2	3	4	5	6	2-66
l. town government	1	2	3	4	5	6	
m. civic and service clubs	1	2	3	4	5	6	2-67
n. schools	1	2	3	4	5	6	2-68
o. mental health services	1	2	3	4	5	6	2-69
p. availability of housing	1	2	3	4	5	6	2-70
q. quality of housing	1	2	3	4	5	6	2-71

19. Are there other services I haven't mentioned which are particularly satisfactory or unsatisfactory? Yes________ No ________ 2-72 2-73

	Satisfactory	Unsatisfactory	
			2-74 2-75
If yes, which services?	____________	____________	
	____________	____________	

20. Now I'd like to ask you some questions about your household expenditures. I realize that this information is personal, but please remember that all of the information you give me will be kept entirely confidential.

	Average Amount Per Month	or	Amount Per Year	% Local	% Non-local	
Housing (rent or mortgage payment)						3-1,2,3 3-4
Telephone						3-5,6,7 3-8
Electricity						3-9,10 3-11
Natural Gas						3-12,13 3-14
Fuel Oil						3-15,16 3-17

No. of cars owned: ______
(Do not code)

	Average Amount Per Month	or	Amount Per Year	% Local	% non-local		Please Do Not Write In This Column
Automobile (payments)	______		______	____	____	3-18,19,20 3-21	____ ____
Gasoline & Car Repairs	______		______	____	____	3-22,23,24 3-25	____ ____
Medical Expenses and health insurance payments (excl. those automatically deducted from paycheck)	______		______	____	____	3-26,27,28 3-29	____ ____
Life insurance payments (excl. those automatically deducted from paycheck)	______		______	____	____	3-30,31 3-32	____ ____
Auto Insurance	______		______	____	____	3-33,34 3-35	____ ____
Groceries	______		______	____	____	3-36,37,38 3-39	____ ____
Restaurants, Bars, Amusements	______		______	____	____	3-40,41,42 3-43	____ ____
Travel (vacations, etc.)	______		______	____	____	3-44,45,46 3-47	____ ____
Other (clothing, gifts, etc.)	______		______	____	____	3-48,49,50 3-51	____ ____
Savings	______		______	____	____	3-52,53,54 3-55	____ ____

21. How much money is automatically deducted from your paycheck for health insurance? $______________ 3-56 ____ 3-57 ____

22. What is your take-home pay? $ ____________ per week, bi-monthly, per month (circle one) 3-58 ____ 3-59 ____

Write
In This
Column

NEWCOMERS

3-60

If respondent has indicated that his family (spouse and/or children) is absent, ask questions 1 and 2; if not, begin with question 3.

4-38
4-39

1. Sometimes, when a person begins a new job in a new area, he/she doesn't aways bring his/her family right away, in case things don't work out well immediately. I notice your family is NOT here with you. Can you tell me what reasons influenced the decision not to bring your family here? (probe)

4-40
4-41

4-42

2. Do you hope to bring your family here? yes ______ no ______

   If yes, when? ______________________

4-43 __
4-44 __

3. Have the other household members lived here for the same length of time as the household head? yes______ no ______

4-45 __
4-46 __

   If not, how long did the household head live here before the rest of the household moved here? ______________________

4. What was the location of your (head of household's last job, just before coming here? ______________________

4-47 __
4-48 __

5. What was your (head of household's) occupation there? ______________________

   ______________________.

4-49 __

6. How far did you (head of household) live from your place of work there?

   ____________ miles.

4-50 __
4-51 __

   a. Did you drive to work? yes______ no ______

4-52 __

   b. How long did you live there? ______________________

4-53 __
4-54 __

   c. (If respondent has a family, ask:)

      Did your family live there with you? yes______ no______

      If no, why not?

4-55 __
4-56 __
4-57 __
4-58

7. a. For what reasons did you move here?

4-59 __
4-60 __

   b. (If working on project), how did you learn about the job opportunities here? (probe: friend, rumor, sent by union, etc.

4-61 __
4-62

Do Not
Write
In Thi
Columr

8. Now, I'd like to ask you some questions about how you feel about living in (near) ______________________________ .
(name of town)
Please indicate the three words on the list below which best describe the ____________________ area as a place to live. (Rank top 2.) (card)

4-63
4-64
4-65
4 66
4-67
4-68

____easy
____happy
____modern
____lonely
____competitive
____impersonal
____dull
____exciting
____conservative
____rewarding
____unfriendly
____isolated
____slow-moving
____difficult
____friendly
____expensive
____relaxed
____dirty

9. What are the things you like MOST about living in ____________________?
(community)

4-69
4-70
4-71
4-72

10. What are the things you like LEAST about living in ____________________?
(community)

4-73
4-74
4-75
5-1

11. In which of these ranges would your yearly family income (before taxes) fall into? (use card)

5-2
5-3

A. ____less than $2000
B. ____$2000-$3999
C. ____$4000-$5999
D. ____$6000- $7999
E. ____$8000-$9999
F. ____$10000-$11999
G. ____$12000-$13999
H. ____$14000-15999
I. ____$16000-$17999
J. ____$18000-$19999
K. ____$20000-$21999
L. ____$22000-$23999
M. ____$24000-$25999
N. ____$26000-$27999
O. ____$28000-$29999
P. ____$30000-$31999
Q. ____$32000-$33999
R. ____$34000-$35999
S. ____$36000-$37999
T. ____$38000-$39999
U. ____$40000 or more

DO NOT ASK A - C. OBSERVE.)

A. Address ____

B. Anglo 1 Hispano 2 Nat. American Indian 3 Negro 4 Oriental 5

5-4

C. Type of Dwelling:

5-5

SF - 2 bedrooms ____
SF - 3 bedrooms ____
SF - 4 bedrooms ____
SF - 5 bedrooms ____
Other SF ____
duplex, townhouse, condominium ____
apartment ____
mobile home ____
other ____

THANK YOU VERY MUCH FOR YOUR COOPERATION.

Please
Do Not
Write
In This
Column

LONGTIME RESIDENTS (A)

Now I'd like to ask you a few questions about your reaction to the energy-related construction that's been going on around here. 3-60 ___

1. Have the actual effects of the construction on the community/area been 3-61 ___
   about what you expected ____________
   better than you expected ____________
   worse than you expected ____________

   If better or worse, in what way(s)?

3-62 ___
3-63 ___
3-64 ___
3-65 ___

2. Have you gotten to be friends with any people who have moved here within the last ____________ years? Yes_____ No _____ 3-66 ___

3. In terms of your overall feelings, would you say you are glad ______ or unhappy_______ that the project came here? 3-67 ___
   Why?

3-68 ___
3-69 ___
3-70 ___
3-71 ___

4. In which of these ranges would your yearly family income (before taxes) fall into? (use card)

A. _____less than $2000	H. _____$14000-$15999	O. _____$28000-$29999	
B. _____$2000 -$3999	I. _____$16000-$17999	P. _____$30000-$31999	3-72_____
C. _____$4000-$5999	J. _____$18000-$19999	Q. _____$32000-$33999	3-73_____
D. _____$6000-$7999	K. _____$20000-$21999	R. _____$34000-$35999	
E. _____$8000-$9999	L. _____$22000-$23999	S. _____$36000-$37999	
F. _____$10000-$11999	M. _____$24000-$25999	T. _____$38000-$39999	
G. _____$12000-$13999	N. _____$26000-$27999	U. _____$40000 or more	

(DO NOT ASK A - C. OBSERVE.)

A. Address ____

B	Anglo	Hispano	Nat. American Indian	Negro	Oriental	3-74_____
	1	2	3	4	5	

C. Type of Dwelling: 3-75 ___

SF - 2 bedrooms	_____	duplex, townhouse, condominium	_____
SF - 3 bedrooms	_____	apartment	_____
SF - 4 bedrooms	_____	mobile home	_____
SF - 5 bedrooms	_____	other	_____
Other SF	_____		

THANK YOU VERY MUCH FOR YOUR COOPERATION.

D. SAMPLE INDIVIDUAL INTERVIEW SCHEDULE: COMMUNITY SURVEY

INDIVIDUAL INTERVIEW

1. Community ______________________________ 1-4 ____

2. What is your age? ____ **Sex**: M F Jt Ot **Eth**: A H AI N OR 5 ____ 6 ____ 7 ____

3. What is your marital status? ___Sing ___Marr ___Sep ___Div ___Wid 8 ____

4. What is your spouse's age? ____ 9 ____

5. Do you have any children living at home? Ages: ____________________ 10 ____

6. Is your family living here with you? ___Yes ___No 11 ____

   If NO, where? ______________________________ 12 ____

7. Do you ___Own or ___Rent? 13 ____

   How many bedrooms are there in this unit? 14 ____

   ___Single family, 2 bdrm
   ___Single family, 3 bdrm
   ___Single family, 4 bdrm
   ___Single family, 5 bdrm
   ___Other single family
   ___Duplex/townhouse/condo
   ___Apartment
   ___Mobile home
   ___Other

8. How many years have you lived here? ______________ 15 ____

9. Where were you living before moving here? ____________________ 16 ____

10. What is your principal occupation? 17 ____ 18 ____

11. If MARRIED, What is your spouse's principal occupation? 19 ____ 20 ____

12. What is the highest level of formal education you completed? 21 ____

    ___Did not graduate high school
    ___High school graduate
    ___Attended college, no degree
    ___College graduate
    ___Some graduate school
    ___Advanced degree
    ___Vocational/technical school

13. Into which of these ranges would your yearly income, before taxes, fall? ____ (SHOW CARD) 22 ____ 23 ____

14. Social grouping: ______________________________ 24 ____

15. OLDTIMERS: We would first like to get some of your general impressions of this community as it is now, and as it was __ years ago. (SHOW CARD) Could you tell me which of these words describe (name of town) today.

15. NEWCOMERS: We would first like to get some of your general impressions of this community. (SHOW CARD) Could you tell me which of these words describe (name of town).

NOW	THEN		NOW	THEN		NOW	THEN	
___	___	Beautiful	___	___	Dull	___	___	Lonely
___	___	Clean	___	___	Exciting	___	___	Progressive
___	___	Competitive	___	___	Expensive	___	___	Relaxed
___	___	Difficult	___	___	Friendly	___	___	Rewarding
___	___	Dirty	___	___	Harmonious	___	___	Run down
___	___	Disorganized	___	___	Isolated	___	___	Traditional

25 ____
26 ____
27 ____
28 ____
29 ____
30 ____
31 ____
32 ____
33 ____
34 ____
35 ____
36 ____
37 ____
38 ____
39 ____
40 ____
41 ____
42 ____

16. OLDTIMERS: Now, would you look at the list again, and tell me which words describe the way (name of town) was __ years ago.

17. OLDTIMERS: We now want to find out if you think some social conditions have changed in town since the (Name of project) started. I'm going to read a list of factors some people feel are related to healthy communities. As I read them, would you indicate whether each situation is now better than, worse than, or about the same as it was __ years ago.

17. NEWCOMERS: We now want to find out what you think of social conditions here. I'm going to read a list of factors which some people feel are related to healthy communities. As I read them, would you indicate your level of satisfaction or dissatisfaction with each one here in (name of town).

	Better	Same	Worse	Unsure	Very Satisfied	Satisfied	Dissatisfied	Very Dissatis	Unsure	
The sense of community or the concern people show for one another	1	2	3	4	5	6	7	8	9	43 ___
The feeling that you know a lot of people here	1	2	3	4	5	6	7	8	9	44 ___
The way newcomers become part of the community	1	2	3	4	5	6	7	8	9	45 ___
Relations between various groups in town	1	2	3	4	5	6	7	8	9	46 ___
Your own sense of belonging here	1	2	3	4	5	6	7	8	9	47 ___
The level of crime	1	2	3	4	5	6	7	8	9	48 ___
The level of alcoholism and drug addiction	1	2	3	4	5	6	7	8	9	49 ___
The level of marital problems and family breakups	1	2	3	4	5	6	7	8	9	50 ___

Are there any other factors like these that you feel are related to healthy communities?

51 ___
52 ___
53 ___

18. As you look at the people here in (name of town), what basic divisions, if any, do you see, or what categories do you use to describe different groups? Could you give a brief description of each group?

54 ___
55 ___

19. OLDTIMERS: Have you gotten to know any new people who have moved here within the last __ years? ___Yes ___Unsure ___No

56 ___

If YES, Where did you meet them or how did you come to know them?

57 ___

If YES, Would you characterize them as
___close friends,
___acquaintances, or
___nodding acquaintances?

58 ___

If NO, Why do you think that is?

59 ___

19. NEWCOMERS: Have you gotten to know any of the long-time residents around here? ___Yes ___Unsure ___No 60 ___

If YES, Where did you meet them or how did you come to know them? 61 ___

If YES, Would you characterize them as ___close friends, 62 ___
___acquaintances, or
___nodding acquaintances?

If NO, Why do you think that is? 63 ___

20. OLDTIMERS: Have your friends and neighbors who have been here for a while seemed to change in any basic way since the boom started?

20. NEWCOMERS: Do the people here in (name of town) seem different in any basic way than the people you knew back in (name of previous town)?

___Yes ___Unsure ___No 64 ___

If YES, in what way? 65 ___

66 ___

21. OLDTIMERS: Again, we're interested in your comparison between conditions now and __ years ago. So, would you tell me how each situation that I read to you has changed over the last __ years.

21. NEWCOMERS: Again, we are interested in your satisfaction or dissatisfaction with conditions here. As I mention each situation, would you indicate your level of satisfaction with conditions here in (name of town).

	Greater	Same	Less	Unsure	Very Satisfied	Satisfied	Dissatisfied	Very Dissatis	Unsure	
The chance to have a part in making important decisions in the community	1	2	3	4	5	6	7	8	9	67 ___
The chance to hold a leadership position	1	2	3	4	5	6	7	8	9	68 ___
Your actual level of involvement in political kinds of activities	1	2	3	4	5	6	7	8	9	69 ___
The level of responsiveness of the local government	1	2	3	4	5	6	7	8	9	70 ___
The level of competence of the local government	1	2	3	4	5	6	7	8	9	71 ___

Are there any other factors like these that you feel are important in understanding the government and politics of the community?

72 ___
73 ___
74 ___

22. What's your view about who really makes the important decisions around here?

75 ___
76 ___

23. Has that changed since the boom started? ___Yes ___Unsure ___No 77 ___
If YES, In what way?

78 ___
79 ___

24. OLDTIMERS: Let's go back to comparing conditions here now and __ years ago, this time economic conditions...

24. NEWCOMERS: Let's go back to your satisfactions and dissatisfactions with conditions here, this time economic conditions...

	Better	Same	Worse	Unsure	Very Satisfied	Satisfied	Dissatisfied	Very Dissatis	Unsure	80 ____
Overall satisfaction with your job	1	2	3	4	5	6	7	8	9	1-4 ____
Your actual working conditions or situation	1	2	3	4	5	6	7	8	9	5 ____
The cost of housing	1	2	3	4	5	6	7	8	9	6 ____
How good your income is in light of the costs of living here	1	2	3	4	5	6	7	8	9	7 ____
How hard you have to work to make ends meet	1	2	3	4	5	6	7	8	9	8 ____

Are there any other factors like these that you feel are important in understanding people's economic situations?

9 ____
10 ____
11 ____

25. OLDTIMERS: How do you think the average long-time resident here feels about the boom in so far as it has affected his or her financial situation?

12 ____

25. NEWCOMERS: Do you think the average newcomer here feels he or she made the right financial decision in coming here? ___Yes ___Unsure ___No

13 ____

Why/Why not?

14 ____

26. OLDTIMERS: Okay, let's go back one last time to comparing the town today and __ years ago...

26. NEWCOMERS: Okay, let's go back one last time to recording your satisfactions and dissatisfactions with conditions here...

	Better	Same	Worse	Unsure	Very Satisfied	Satisfied	Dissatisfied	Very Dissatis	Unsure	
The physical appearance of the town	1	2	3	4	5	6	7	8	9	15 ____
The physical appearance of the whole area around here	1	2	3	4	5	6	7	8	9	16 ____
The quality of the air	1	2	3	4	5	6	7	8	9	17 ____
The quality of the water	1	2	3	4	5	6	7	8	9	18 ____
The noise level	1	2	3	4	5	6	7	8	9	19 ____
The climate	1	2	3	4	5	6	7	8	9	20 ____
Conditions of streets and roads	1	2	3	4	5	6	7	8	9	21 ____
Public transportation in and around town	1	2	3	4	5	6	7	8	9	22 ____
Traffic conditions in and around town	1	2	3	4	5	6	7	8	9	23 ____

	B	S	W	U	VS	S	D	VD	U	
The responsiveness of the school system to parents	1	2	3	4	5	6	7	8	9	24 ___
Library facilities	1	2	3	4	5	6	7	8	9	25 ___
Local law enforcement and police protection	1	2	3	4	5	6	7	8	9	26 ___
Opportunities for participation in religious activities	1	2	3	4	5	6	7	8	9	27 ___
The general moral climate of the community	1	2	3	4	5	6	7	8	9	28 ___
Your personal satisfaction with family life	1	2	3	4	5	6	7	8	9	29 ___

Are there any other factors like these that you feel are important for evaluating what kind of town this is to live in?

30 ___
31 ___
32 ___

27. OLDTIMERS: Have the schools here changed in any way over the last __ years? ___Yes ___Unsure ___No 33 ___

If YES, In what way? 34 ___

27. NEWCOMERS: What do you see as the strongest and weakest aspects of the school system here?

Strongest Weakest

35 ___
36 ___

28. OLDTIMERS: Would you briefly describe how the other members of your family have reacted to the changes here since the boom started? For instance, what have they like or disliked?

28. NEWCOMERS: Would you briefly describe how the other members of your family have reacted to the move here, to this community? For instance, what have they liked or disliked?

37 ___
38 ___
39 ___
40 ___

29. OLDTIMERS: When did you first hear that the (name of project) was going to happen, and how did you react at first?

41 ___
42 ___

29. NEWCOMERS: Have you been present in other towns during boom periods? ___Yes ___Unsure ___No 43 ___

If YES, Describe (e.g. when, where, your role) and compare

44 ___
45 ___

30. How do you rate the job the town's leaders did in responding to the entry of the project here in (name of town) and its impacts? E.g. What did they do right or wrong?

46 ___
47 ___

31. Looking back over the boom period, what advice would you give to people in a town about to experience a similar project?

48 ___
49 ___

32. Would you want to see another town through a similar experience? ___Yes ___Unsure ___No 50 ___

33. Considering all things, do you like it here in (name of town)? ___Yes ___Unsure ___No 51 ___

34. Are there any other comments you would like to make?

52 ___
53 ___

E. SAMPLE INSTITUTIONAL REPRESENTATIVE INTERVIEW SCHEDULE: COMMUNITY SURVEY

INSTITUTIONAL REPRESENTATIVE INTERVIEW

1-4 ___

1. Name ______________________ Position: ______________________ 5 ___
2. Sex M F Age: __________ Ethnicity: A H AI N OR 6 ___
7 ___
3. How long have you been in this position? ______________________ 8 ___
4. What's your background before that? 9 ___
10 ___
11 ___

5. PRE-IMPACT SITUATION Role of institution in community; adequacy of performance - services, facilities, personnel, finances, sense of direction, planning capabilities; major issues, strengths, weaknesses, etc.	

During the pre-boom period, was your institution/agency/etc. performing its job adequately, in your opinion? ___Yes ___Unsure ___No 12 ___

What was its biggest problem then? 13 ___
14 ___

6. PROJECT ENTRY Process of learning of project - good info, rumors; contacts between company(ies) & town; timing, adequacy of info; first reactions, etc.	

Do you feel that as a (name of position) you received
adequate information ___Yes ___Unsure ___No 15 ___
timely information ___Yes ___Unsure ___No 16 ___

Do you feel the company (ies) dealt fair and square with the community? ___Yes ___Unsure ___No 17 ___

7. IMPACTS Impacts on you, your institution, community; your view of project & new population; costs and benefits, etc.	

Considering all things, have the project's
___Costs outweighed the benefits
___Costs and benefits been about equal
___Benefits outweighed the costs 18 ___

8. DEALING WITH IMPACTS When; who initiated, who led things; forms of public discussion; form of response: personal, institutional, community; evaluation of response, etc.	

Did the community's leaders react responsibly? ___Yes ___Unsure ___No 19 ___
Did the community's leaders react quickly enough? ___Yes ___Unsure ___No 20 ___
Was there the chance for anybody who wanted, to be
a part of the discussion of problems and impacts? ___Yes ___Unsure ___No 21 ___

9. PRESENT SITUATION Role of institution now - adequacy of performance - services, facilities, personnel, finances, sense of direction, planning capabilities; major issues, strengths, weaknesses etc.	

Do you feel your institution/agency/etc. is performing its job adequately 22 ___
today? ___Yes ___Unsure ___No 23 ___

What is its biggest problem today? 24 ___

10. IN RETROSPECT Guesses on post-departure impacts; glad/sad it happened now; want to see another town go through it; advice to another town & lessons learned, etc.	

Considering everything, are you now SAD, GLAD, or do do have MIXED FEELINGS about the project? 25 ___

Would you want to see another town go
through a similar experience? ___Yes ___Unsure ___No 26 ___

11. OTHER COMMENTS 27 ___
28 ___